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Developing Executive Ability

By

ENOCH BURTON GOWIN

Assistant Professor of Commerce, New York University School of Commerce, Accounts and Finance; Secretary, The Executives' Club of New York; Chairman, Committee on Executive Training, National Association of Corporation Schools; Author, "The Executive and His Control of Men," "The Selection and Training of the Business Executive," etc.



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TO MEMBERS OF
THE EXECUTIVES' CLUB OF NEW YORK
EARNEST WORKERS, SINCERE COMRADES, FORWARD-
LOOKING LEADERS, THIS WORK IS DEDICATED IN
APPRECIATION

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PREFACE

"There are more jobs for forceful men than there are forceful men to fill them," says the Chairman of the Bethlehem Steel Corporation, Charles M. Schwab. "Whenever the question comes up of buying new works we never consider whether we can make the works pay. That is a foregone conclusion if we can get the right man to manage them."

"The average man is ambitious and wants to get ahead," says the General Manager of the Loose-Wiles Biscuit Company, G. H. Willcockson, "but he does not know how."

The opportunity with which men in business are faced and the reason why it remains in large measure unutilized are here set forth. Though the need for their most skilled service continues very real, men possessed of the latent executive capacity too often are left to plod through the day's work as best they may, without vision and the definite methods which might so readily advance them.

This vision and these definite methods, valuable because based on sound principles and concrete enough to apply to the day's work, are necessary if men in business are to forge ahead; and they ought to be so interwoven with the general qualities of mind and body that a coherent program of personal management results. The individual then utilizes to the full his resources because he wants to and knows how. That such full utilization shall take place in the reader's personality and career constitutes the purpose of this book.

The form of presentation adopted is non-technical and informal to a degree perhaps unusual in a work of such serious purpose. The author admittedly has a preference for the

more strictly scientific, and the informal nature of the book is due to the fact that much of its material has been presented before various groups of business and college men, and that the interest and preferences of these audiences have been taken rather definitely as a guide in the task of writing. Theoretical discussions, which in the past proved least interesting, have been reduced to a minimum; and concrete instances, definite methods and opinions of leading executives, for which the hearers evinced a keen appreciation, have been presented with relative fulness. The result is not a work for scholars, much less an attempt to display erudition, but a series of chapters distinctly practical in their aim.

It is a pleasure to acknowledge the aid received from business executives, who in considerable number considered with the author their problems; students who have supplied various materials; and the following books and magazines, quotations from which appear in the present volume on the pages specified: George P. Baker and Henry C. Huntington, "Principles of Argumentation," 239, 240; Harrington Emerson, "Twelve Principles of Efficiency," 135; B. C. Forbes, "Men Who Are Making America," 10, 371, 417; F. B. Gilbreth, "Motion Study," 172; W. H. Herndon and J. W. Wiek, "Abraham Lincoln," 220; *Hearst's Magazine*, 347, *Engineering Magazine*, 284, 285, 286; William James, "Principles of Psychology," 84, 85, 87, 186, 325-326; Ibidem, "Talks to Teachers on Psychology," 344, 352; E. D. Jones, "Administration of Industrial Enterprises;" W. C. Mitchell, "Business Cycles," 261, 266; Angelo Mosso, "Fatigue," 339; F. W. McMurry, "How to Study," 16; Life Extension Institute, 296, 314, 358; J. D. Rockefeller, "Random Reminiscences of Men and Events;" C. E. Seashore, "Psychology in Everyday Life," 86; *System*, 11, 54, 115, 129, 149, 151, 208, 429; Ida M. Tarbell, "History of the Standard Oil Company," 64, 199, 390, 449; F. W. Taussig, "Inventors and Money-

Makers," 216; *World's Work*, 226. These quotations were to have been cited in the footnotes, but owing to the author's entrance upon duties in the Ordnance Department before the manuscript was fully completed the plan contemplated was not carried out. For the same reason the author is indebted rather more than otherwise he would have been to members of The Ronald Press Company's editorial staff. Mr. Conyngton and Mr. Shidle very kindly prepared the legal portion of the chapter, "The Executive's Legal Problems," Mr. Shidle in connection with other chapters has also been very helpful, and Mr. Wade has done much of the work in expanding a single chapter on "Personal Finance" into the present Part VII.

The author thanks all these co-workers for their interest in cultivating with him the science of personal management.

E. B. GOWIN.

Washington, D. C.,
Labor Day, 1918.

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2. Be a Specialist, Ignorant of Many Things
3. Concentrate Upon the Essentials of Your Specialty
4. Master as You Go

RULES OF ASSOCIATION

1. Analyze for Principles
2. Discover Relationships
3. Make Use of Associations
4. Bind Elements Into Large Units

RULES OF RECALL

1. Recall With Accuracy
2. Concentrate on the Relevant
3. Repeat the Recall Frequently
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DEVELOPING EXECUTIVE ABILITY

PART I

TODAY'S WORK—AND BEYOND

Under scientific management the best man rises to the top more certainly and more rapidly than ever before.—
FREDERICK WINSLOW TAYLOR.

CHAPTER I

THE OPPORTUNITY OF THE EXECUTIVE

There are more jobs for forceful men than there are forceful men to fill them.—CHARLES M. SCHWAB.

The Big Idea in Business

The time has arrived in business when executives, convinced that rule-of-thumb cannot serve them, are developing with great rapidity the new science of management. It is not that these men prefer theories, or changes, or severe thinking; the new methods *get results* and they are adopted solely for this reason. This development of better management, both in its aims and methods, is commendable; but, since every man personally, as well as officially, has a business enterprise under way, is the process to stop short of the executives themselves? The individual, no less than the corporation, has his problems of production, sales, accounts, and finance. In order to render his enterprise highly profitable, a first-rate dividend-payer whose stock is always above par, every self-manager who is progressive and foresighted, will seek to conduct these four operations in a manner that is thoroughly efficient.

In his moments of strength a man sets for himself as personal manager certain standards of achievement. These represent his maximum, that high level of independence, responsibility, opportunity, and remuneration for which his best self longs and to which his capacity justifiably entitles him. He proposes to forge ahead until these worthy ends are attained—his part meanwhile to be that of a skilled player enjoying

every move in the great game of business itself. This full utilization of every available resource, this getting of the best from oneself, constitutes to him the big idea.

In Charge of a Billion-Dollar Enterprise

In speaking of a man's personality as a *business enterprise*, with its problems of production, sales, accounts, and finance, and its ideal of first-class management, have we a conception which is definite and which may be justified? Let us see.

For more than fifteen years one man has been the chief master of the iron and steel industry, with 152,000 stockholders above him expecting dividends and 270,000 workmen beneath him demanding wages. He is Elbert H. Gary, Chairman of the Board of Directors of the United States Steel Corporation. He presides over an industrial empire owning more land than Massachusetts, New Hampshire, and Vermont combined; supporting more people than inhabit Nebraska; employing more men than fought at Gettysburg; sailing a larger navy than that of Italy; gathering in a larger revenue than the United States Treasury; and representing more capital than all the banks in New York City.

Judge Gary, while not a practical manufacturer, is overlord of 146 plants and 1,700 industrial communities; though he is neither a railroad nor steamship authority, he directs a trackage of 3,380 miles and a fleet of 220 units; he is not a miner, yet his company excavates iron ore and coal with an army of 40,000 men; he is no expert steel-maker, but his furnaces and mills roll up tremendous production records.

His business cares do not seem to tax him.

Yet while Judge Gary goes calmly on his way with his billion-dollar corporation in tow and other captains of industry, similar in their effectiveness, are crowding the business day with transactions of like magnitude, we meet men "hur-

ried to death" managing corner groceries, "awfully busy" attending to tiny machine shops, worried into sleeplessness over the burden of \$100 deals. Their business stature, in comparison with the captain of industry, appears dwarfed.

Manifestly Judge Gary, and men like him, had certain in-born qualities and capacities of high grade upon which to build. Yet mere inherent ability, inborn capacity, floats no man to an easy success. Every one of these men utilized, developed, made the most of the powers with which he was endowed by nature. His *personal enterprise* becomes stronger, better organized, more smoothly efficient year by year.

The Twenty-Five Per Cent Man

Inside every business organization there are men who, somehow, have stood still. They have been years perhaps with the same company, at their desk regularly from nine to five; yet they have received little if any real promotion. Worse still, others have been advanced over their heads, and the orders issued by some of these erstwhile subordinates, now managers, under the circumstances contain a sting. The mental atmosphere in which such men live deadens and embitters; it serves to breed disloyalty, possibly anarchy, certainly not efficiency.

What men in business receive, however, whether they be rising executives or the routine-minded caught in stagnant coves, is, as a broad, general principle, proportioned strictly to the value of their services. The corporation which pays its president perhaps \$100,000 annually believes that inasmuch as the net profits would be considerably less under a \$50,000 man, the big man is cheap at the big salary, whereas acting under similar reasoning it at the same time discharges a \$15-a-week clerk because at that price he is found too expensive. It is a matter simply of services rated at a given value and purchased at a given cost.

The men who advance concentrate upon the essentials of their enterprise—its production, sales, accounts, and finance activities—because these things, not complaints and criticisms, will get them what they seek. The position on ahead is for the man who overflows the position now at hand.

Is the average business man of this plus type, a smoothly running dynamo with reserve power in wait for some unusual job? Does he produce, sell, record, and finance at maximum capacity? While not a few persons in a vague way deceive themselves into thinking that their best is being done, an impartial analysis commonly reveals this average man acting thus:

He squanders his energy unproductively, worrying more than he works and filling his body and brain with fatigue poisons.

He thinks superficially.

He is the slave of rule-of-thumb, a sluggish fellow content to tread the winding cow-path of custom instead of striking through a short cut of his own.

He procrastinates, dulls his will by "can'ts," "won'ts," and "don'ts," and merely dreams of new ventures.

He forgets.

He lacks control—a victim of carelessness, bad temper, selfishness, laziness, and snap judgment.

He swelters along under loads of details, a never-ending routine under which creative plans are crushed out, and fails above all to perceive that perched high upon this pack-horse burden which he carries rides his real master, the devil of inefficiency.

"I believe," says Melville W. Mix, President of the Dodge Manufacturing Company, "that the majority of executives in this country are not more than twenty-five per cent efficient measured by the standard of performance of the few really efficient ones."

Opportunity

But, someone suggests upon looking over the foregoing list, granted that these are deficiencies, is not the average man still larger than the average job? Could an additional 100 per cent man find an enterprise to swing?

The United States is still a growing country. Its citizens, because their standard of life is high, with every indication of becoming higher, have many wants, and the growth of population which bids fair to continue for decades thus affords business men an unrivaled market. In addition to these domestic needs there are world needs of enormous proportions. Only progressive methods in production, selling, accounting, and financing can meet adequately such market demands.

The managers who aim both to devise and operate these progressive methods have undertaken tasks which tax to the utmost their capacity. With industry led by giant corporations, and trade relations established with all parts of the world, strong men are being sought to bear the burden of management. When within the organization an elaborate division of labor involving both men and machines must be planned, the intricacy of the task calls for thought power of a high order. Because each man's effort is dependent upon the activities of many others, the speed exacted in output, the promptness required in meeting every situation, render alertness and reliability qualities highly prized. Finally, with competition sharpening, our business centers becoming more and more crowded, and the markets of the world being sought, the man able most efficiently to produce quantity and quality at low cost, finds his services everywhere in demand regardless of the line of business he is in. Opportunity now as heretofore treads hard upon ability.

The Increased Demand for Executives

This observation receives general support in statements

recently made public by the heads of twenty-five large corporations. It appeared from these reports that:

1. 358 vacancies in executive positions had developed within a very short time.
2. Men to fill 142 of these vacancies could be secured only from outside the organizations.

The situation was being met in their own organizations, certain executives explained, by:

"Promotion and added duties." Ralph Peters, President of Long Island Railroad Company.

"The taking over of work by other executives." J. Franklin McElwain, W. H. McElwain Company.

"The additional work has been largely absorbed by those remaining, made possible by reorganizing to some extent, and the elimination of unnecessary operations." J. N. Willys, Willys-Overland Company.

"We consolidated positions and increased the work and responsibilities of remaining men." P. T. Wharton, Deere and Company.

What do we read between these lines, and similar lines that could be penned of organizations everywhere?

This is a time when as never before every man has his chance, and when it is his public duty to make the most of his chance. Under the imperative of war thousands of men in executive positions—men in large positions and in small ones, young men and mature—were called into government service. Those who were left in charge of business organizations were practically in the government service also. It was not only their opportunity, but their responsibility, to improve themselves, for they had to keep the fires under the boiler and navigate the ship in war time and must now continue to do so in the difficult time after the war.

This is a time when every man should do his utmost, a

time when the demand for our enlarged capacity to serve assumes somewhat the nature of a *call to world service*.

What, then, should be our viewpoint concerning opportunity and personal accomplishment? The highest salaried man in the world expressed it when, upon being asked how he had succeeded, quietly answered:

"I haven't succeeded. No real man ever succeeds. There is always a larger goal ahead." Under the conditions of business as they are evolving today this is literally true; there are always larger goals ahead, for every man who has the power to grow.

Noted Business Men Explain Their Advancement

The reader will agree, very likely, that he is not accomplishing what in justice to himself he knows he ought to do. The question which naturally arises then is: How utilize to the full every resource at my command?

Let us put this question to several captains of industry; they have all displayed conspicuous ability as managers, having risen from the ranks, and their own views concerning the causes of their notable advancement ought to prove illuminating.

Thomas E. Wilson, President of Wilson and Company: "I am no brainier nor wiser than any number of other people. My whole success is traceable to the fact that I have enjoyed my work and have given to it the best in me. No job was ever too big for me to tackle. That is the foundation of success nine times out of ten—having confidence in yourself and applying yourself with all your might to your work."

A. C. Bedford, President of the Standard Oil Company of New Jersey: "The first promotion I attribute to my willingness to do more than was expected of me and to the insight I then obtained into business methods. This gave me a grasp and a vision such as the average clerk in an office too often

fails to cultivate because of his machine-like performance of his allotted tasks."

Theodore N. Vail, President of the American Telegraph and Telephone Company: "I was never unwilling when young, to do another man's work, and then, when older, never willing to do anything somebody else could do better for me. I was always fond enough of detail to thoroughly master what I was undertaking—and then hated detail enough to not bother with it when I got to the treatment of the general subject."

Samuel Insull, President Commonwealth Edison Company: "Non-success is often due to inability to see things, to note intelligently what other people are doing, to learn what is what, and to grasp new opportunities. They don't seem to keep their eye on the ball."

Henry Ford, President Ford Motor Company: "There is one principle which a man must follow if he wishes to succeed, and that is to understand human nature. I am convinced by my own experience, and by that of others, that if there is any secret of success it lies in the ability to get another person's point of view and see things from his angle as well as from your own."

James B. Duke, Ex-President American Tobacco Company: "I had confidence in myself. I said to myself: 'If John D. Rockefeller can do what he is doing in oil, why should I not do it in tobacco?' I resolved from the time I was a mere lad to do a big business. I loved business better than anything else. I worked from early morning to late at night—I was sorry to have to leave off at night and glad when morning came so that I could get at it again."

Personal Traits Which Brought Promotion

Let us supplement these statements of the captains of industry by the replies several executives gave to this ques-

tion: Think of the three best men in your business—what qualities brought them promotion? The answers follow:

“Desire for authority and responsibility, backed by sufficient will-power.”

“Resourcefulness in emergencies.”

“Pushed the work always, never let it push him. Was a live wire for others to look at.”

“A real diplomat liked by all the men. Enthusiastic—took personal interest in the business, and got the best out of everything.”

“Constructive initiative coupled with the application of good common sense added to whatever natural abilities a man may have, achieve success—and deserve it.”

“Kept studying our business, and training himself and every man under him all the time. We had to advance him or he’d have been stolen by some competitor. He is cheap at \$15,000 anyway.”

“Stick-to-itiveness, when the work piled high and the clock struck the hour. Didn’t ‘go up in the air’ at just criticism. Was amenable to suggestions and advice. Careful and accurate. Able to take the handling of some routine without being supervised every minute.”

“Ability to handle men. Initiative. Familiar with my system of records and my desires as regards correspondence. Congenial—and as much interested in the work as I; well-balanced disposition; being able to handle everything with a view to the best results regardless of personalities or obstructions.”

CHAPTER II

A DEFINITE PROGRAM

Only by a system—that is, by something that will work automatically, precisely, accurately—can one secure the fullest returns from his striving.—WALTER H. COTTINGHAM, President, Sherwin-Williams Company.

The Coherent Program Which Gets Results

The statements explaining the success of individuals, cited in the preceding chapter, are all filled with human interest. Yet the man anxious to advance does not find in such statements the coherent program he seeks. They are isolated comments, while it is the well-laid campaign which yields victory in personal management as elsewhere. Systematic planning of such a campaign means long and careful study. It involves:

1. Learning and comparing the views of notable business men concerning their own careers, their methods of work, the lessons experience has taught them. These statements may be gleaned from many sources: interviews, biographies and autobiographies, magazines and newspapers, legal testimony, conversations, correspondence. They should be supplemented and corrected by the comments of competent observers.

2. Observing men for oneself, analyzing with care every salient item about them. Of supreme value are the truly great business executives, those pioneers in personal efficiency whose achievements and methods bring joy to the discriminating observer. Yet in this study the failures, and the mediocre, are not to be ignored, for, while their experience is negative, it has been costly to these persons and its charge should not be re-levied. In discovering what to do a knowledge of what not to do has its value.

The man who has made any progress whatever in business has of course been making such observations for himself already. He is now to do it more systematically and to apply scientific principles.

3. Drawing freely upon a number of related sciences. Physiology, psychology, education, ethics, economics, and business administration particularly, contain material invaluable to the study of personal management. Organizing this material into a coherent system, that is to say, analyzing and classifying its details and deducing general principles.

This part of the work a busy man can hardly find time to do for himself. Nor could he trust fully his own perspective. He needs the help of a good book which will present essentials in compact and reliable form.

4. Finally, most important of all, making this system one's own, its superior effectiveness so woven into the personality as to appear a heritage from nature.

This, of course, must be the contribution of the reader, the student, himself. The *fit* of the book depends on how well it is *shaped* by the individual to his own needs.

Standardization the Key Principle)

The development of first-class practice in the management of oneself, can be completed at a very great saving in time and effort provided we utilize consistently a certain key principle—standardization.

There is always a one best way of doing everything.

In the yards of the Bethlehem Steel Company this one best way was introduced into shoveling. Without longer hours or harder work, output was increased from sixteen tons to fifty-nine, wages from \$1.15 to \$1.88, and ton cost to the company, all expenses included, was reduced from seven and one-fifth cents to three and one-third.

In the stenographic department of a large office standardi-

zation resulted in wage increases averaging twenty-two per cent, a cost reduction from \$7.69 per thousand square inches of typed matter to \$2.58, a lessened overhead and a marked gain in accuracy.

In a sales organization rule-of-thumb was attaining an average business per salesman of \$18,000; standardization with regard to personnel, territory, sales canvasses, and supervision brought this average up to \$39,000.

Practically every forward-looking man in business is an adherent of this principle as regards the operation of machinery and the direction of the labor of subordinates. As the head of a personal enterprise in which production, sales, accounts, and finance are necessary activities, the executive can gain as much from standardization as in the operation of his factory's machinery.

The situation which confronts men in business, consequently, can be summarized in the form of two proportions:

1. Opportunity in the form of increased need for executive ability is today general, with prospects for the future distinctly encouraging; and
2. Standardization affords the method by which to "cash in" on these opportunities because it means seeking out and putting into operation the one best way of doing things.

A Policy of Preparedness, Whatever the Present Position

A certain persistent error cuts short the career of many a junior executive and chains numberless clerks to their routine tasks, namely, the view that while the heads of big organizations must of course be highly skilled it does not matter a great deal how men lower in the ranks do their own work. Once we have been promoted to those positions, the lower rank person possibly adds to the observation, it will be time to train our powers.

The man who puts off developing his capacity until high rank has been attained thereby locks the door against himself and throws away the key. By his own act, he condemns himself to sweat under routine burdens like a stupid pack-horse, to spend his days as a mere drudge, and to let die unrealized his inherent impulse toward high achievement.

The department head in a big corporation, the man at the head of a small organization, have in today's activities, no matter how limited their scope may seem, a complete training course in management, if they care to make it so. Rockefeller, Carnegie, Harriman, Marshall Field, and the other builders of American business had made their careers long before they were operating on a large scale, before they were in the world's eye, because they had already fashioned and matured the use of their *methods*.

The matters most important for executive training as they will be taken up in the chapters which follow, have been grouped under these headings:

1. The Basis of Personal System
2. The Dispatch of a Day's Work
3. The Thinker in Business
4. Personal Dynamics
5. Personal Finance
6. A Man Among Men

Where can be discovered a position which does not require in some measure the exercise of the powers here analyzed and described, which leading executives possess in high degree? The proprietor of a tiny factory or the junior executive who feels himself still far from the centers of business power can so ground himself today in the principles of management that the present position, because the man who holds it has grown in capacity, becomes a stepping stone to better things. This, the correct point of view, transforms clerkships into training

places for managerships, managerships into training places for corporation headships. The business career itself becomes, or it should be, a continuous apprenticeship.

The policy of preparedness is the policy of foresight and vision. Its goal is "The Beyond" but it sees in "Today's Work" the essential steps to take *now*.

EXERCISES

How to Study

In order to become personally efficient in business, mere longings or even high ambitions will not suffice; you must move forward according to a definite program.

"Usually when a man falls short of success," says C. D. Peacock, President of the C. D. Peacock Company, "the trouble lies in some specific direction. Whatever the fault, I believe that men could educate themselves out of it, if they really resolved to do so and went about it intelligently."

Let us take up here the problem of how to study. The right method will not only greatly increase your mental output in pursuing the subject now under consideration, but prove of much benefit in studying the annual reports of your company, articles in business magazines, lectures delivered before your club, and the like.

Set up a Specific Purpose for Your Study. With a sheet of paper before you, jot down answers to these questions: What is my chief purpose in studying this subject? What minor purposes have I in studying it? What benefits am I to derive? Do not destroy this memo, but keep it at hand so that in passing from chapter to chapter you may see the gradual achievement of your purpose.

Supplement the Author's Statements with Your Own Thoughts. What you seek is not knowledge, mere facts, but a science of achievement which applies to your own work. In reading these chapters you must be an active partner. "When you come to a good book," says John Ruskin, "you must ask yourself, 'Am I inclined to work as an Australian miner would? Are my pickaxes and shovels in good order, and am I in good trim myself, my sleeves well up to the elbow, and my breath good, and my temper?' Your pickaxes are your own care, wit, and learning; your smelting furnace is your own thoughtful soul. Do not hope to get at any good author's meaning without these tools, and that fire."

Turn to a page that you have just read, page 14, for example.

Take a second sheet of paper (use paper, for this encourages more definite thinking), then running down this page, line by line, note the various ideas of your own which supplement the author's statements. Take for instance: "A policy of preparedness, whatever the present position." What ideas does this suggest to you? When you have reached the last line, survey the two, the printed page and your list. In working out a science of achievement adapted to your own problems, what is your opinion of yourself as an active partner?

Get at the Essential Ideas. Ideas are not all of equal value; they form no plain but a series of peaks and valleys. Skilled readers like Carlyle, who was able to master a dozen books in a day, mount these peaks of thought in mapping out their intellectual journeys. Obedient to no false notions of thoroughness, they seek only essentials. When these are found they should be pondered over, memorized, woven into your mind, in short, made your own.

On a third sheet of paper make a brief outline of this chapter, numbering in order what you regard as the main ideas advanced, and indenting under each of these some of the minor points made. In reading later chapters use some system of marking the page which will accomplish this same result. For example, a single vertical mark along the margin may indicate that this particular part is worth reviewing, a double line that it should be thoroughly mastered, a triple line that it ought to be memorized. Or sentences summarizing important ideas may be enclosed in parentheses, or underscored, or doubly underscored.

The particular methods employed are open to choice, but the principle is clear; to get at the heart of a book you must cultivate the sense for relative values. What this plan really amounts to is the requirement that you apply the principles of organization, with which you are familiar in business, to the work done by your own mind.

Apply the Test of Experience to What You Read. You will have laid before you the experience of many executives. Nevertheless, what you really desire is not their ideas or the author's ideas, but solely those ideas which will bring results *for you*. Your judgment, calm, unbiased, judicial, must here be the test. As you read sentence after sentence, ask yourself such questions as "Is this reasonable? What has been my experience upon this point? Is this experience of mine extensive enough to warrant me in accepting, or rejecting, this statement now?" In later chapters it will be well to use some marking scheme, as an "O K" for things you distinctly approve, a "?" for things doubtful, an "X" for disapproval.

Supposing you do thus mark a chapter today, would you upon

rereading this chapter a year hence agree fully with the judgments now made? Why not? Answering these two questions thoughtfully will guard you against dogmatic and arbitrary judgments, from idle fault-finding or mere quibbling. As Sir Francis Bacon advises so admirably, "Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to *weigh and consider*."

When you do weigh and consider, when you apply to everything you read the test of your own experience, you are forever free from servility and slavish adherence to authority. Such study develops in you open-mindedness, initiative, self-reliance, self-control—qualities emphatically worth while to every business man.

Put the Ideas You Have Gained into Use. Of what value, finally, is any idea to you? Does it not depend upon what it will *do* for you? If it will not serve you, if, in short, it will not work, then it is like dead stock on a retailer's shelves or capital sunk in out-of-date machines. But the result-getting idea is like a mill constantly grinding fine flour. Here we have the test—an idea's value is what it will produce for you—but the only way to apply this test is through actual practice.

PART II

THE BASIS OF PERSONAL SYSTEM

I have never known of a great business success without a personality. I have never known of a great personality without a system.—HENRY C. LYTTON, President, The Hub.

One should supervise details, but not let them absorb him.
FRANK W. WOOLWORTH.

CHAPTER III

HANDLING DETAILS

Have a well-considered system of doing things, definite and businesslike, not an imitation of something else, but one designed for your own use.—JOHN CALDER, President, International Motor Company.

Victim or Master of Details

A man does not advance far in business before its burden of detail commences to press upon him. The typewriter has simplified correspondence, but it brings more letters. The telephone is a wonderful device, but it means more calls. The mail and express services, the telegraph, railroads, and steamships—and within his organization, advertising, division of labor, large-scale production—are all indispensable in modern business, but by their weight of detail they all multiply the burden of the man who must carry the enterprise. The first step in personal efficiency for the executive consists in learning how best to handle this burden of detail.

The day's routine is alike omnipresent, necessary, and yet insidious in its ultimate influence. The standardization of the day's routine, accordingly, affords the true basis of personal system.

How J. Pierpont Morgan Handled Details

The following incident in the life of the late J. Pierpont Morgan has often been misinterpreted with reference to the great financier's way of handling details.

One day in the Federal Building, Mr. Lamb as opposing lawyer was cross-examining Mr. Morgan about the purchase

of \$15,000,000 of Northern Pacific stock in 1901. The financier sat on one side of the table; the lawyer on the other.

"How much did that stock cost?"

"Haven't any idea."

"How much did your firm make out of it?"

"I don't know."

"Well, did you make one million or ten million?"

"I tell you I don't know. I don't attend to the details. I said 'Buy it.' Steele knows about the details; he'll tell you about that!"

Now it is important not to miss the point here. There are those who quickly read into the attitude of the financier an easy solution for the problem of details. Ignore them, scorn them as nuisances to be brushed aside! Such observers overlook the closing sentence of the significant little dialogue. Although Mr. Morgan did not know the details, *Steele did!*

Mr. Morgan when he made those remarks was a battle-scarred veteran of finance, the ripened product of a career of masterly administration. Years before, as a young bank clerk, he dug relentlessly into the details of each task with which he was entrusted. Now he selected competent and capable men to watch those details with close care so that he no longer needed to give them his personal attention.

Business Knowledge Which Gets Down to Bed-Rock

The man who at *no* time in his career pays attention to detail builds his house upon the sand. The storms of adversity which some time or other test every business structure will detect certain weaknesses in his organization and it will fall.

"Although everything is being done on a larger scale," observes James Logan of the United States Envelope Company, "there never was a time when the smallest details of a business had to be watched so closely as at present."

The organizations which forge ahead today in the race for

business supremacy tolerate less and less, on the part of those connected with them, rash undertakings, "I believe's," and "Guess so's." Their executives find it increasingly true that in order to carry their responsibilities they must possess a business knowledge which gets down to bed-rock. Bed-rock in this particular sense means the stratum of fundamental, unavoidable details which lies at the bottom of every great business structure. In order to do his own work well, it is essential for the executive to know the various elements and processes which enter into the business.

It is a symptom of wasteful nervousness and inefficiency for a department manager to sharpen pencils, fill fountain pens, or run errands. It is just as wasteful for him to spend his strength on the minute steps of production, distribution, etc. But in order to arrange work for subordinates it is necessary to comprehend their duties.

The executive sees the duties of his subordinates, not as they see them, but in the bigger relation of all the different cogs and wheels to the vast business machine. The essential thing is not so much that the chief should be able to put himself in the employee's place as that he should be able to place the employees, every one, in *their* proper place.

Systematic Care for Details

That is to say, if the executive engulfs himself in a sea of details, it is fatal to the business and to his career; if he ignores them, it is equally fatal. The solution of the problem must come through standardization, proper distribution of responsibility, system. Details must be watched, but plans must be devised for watching them with maximum accuracy and minimum effort.

This subject, it should be noted, is of even greater importance for the executive who is *on his way up*—a department manager or the head of a small but growing concern—than

for the man already at the top of a great organization. For such an ambitious, growing man the following maxims may serve as a guide in his work of organizing and standardizing his activities:

1. However deep an immersion in details a man's present duties require, the business career permits a consistent rise until like Morgan, apprenticeship served, he may eventually hold easy mastery.

2. The rate of his progress, whatever the stage of advancement already reached, depends largely upon his handling so efficiently the details which fall within his care—either personally or through wisely directed subordinates—as to have leisure to do the big thing just above.

A First Aid to the Memory—the Memo

The first rule for economy of time and effort is this: Keep the big things in mind, the details on paper. The man who does not "make a note of it" is an intellectual prodigal. He wishes to give his time and attention to the big things—the \$50,000 contract, the proposed trade advance in South America, the new branch in St. Louis—but scarcely does he concentrate upon these big things when a forgotten house conference, a broken luncheon engagement, or a misplaced letter brings him sharply back to routine again.

He needs a first aid to the memory.

Such is the memo system; "make a note of it."

The method is very important in note-making. Henry Ward Beecher jotted down incessantly upon scraps of paper and the backs of old envelopes the various points he wanted to remember; but however brilliant Mr. Beecher's sermons were made by this plan, the medium he employed is open to criticism. Paper can be arranged in such convenient forms that no one is justified in using odds and ends.

The Defects of a Bound Note-Book

The bound note-book is, as a usual thing, unsatisfactory. If printed or indexed according to dates, it may prove convenient as an appointment memo, or, indexed alphabetically, it serves well enough for names and addresses. But it soon becomes filled with useless, out-of-date material, through which one must thumb in order to find what one wants. Worse still, only by chance does one make notes of things in the same order in which he prefers to take them up later on; yet notes which are bound are continually seeking to dictate the order in which they shall receive attention. What you want is consecutive order in doing things, not in making notes of things to do.

The Loose-Leaf Memo System

Loose-leaf, ringed note-books avoid inflexibility, the chief defect of the bound form. They can be obtained in a variety of sizes and styles. If you carry the book in your inside coat pocket, as is commonly done, you should avoid the larger and more bulky styles. It would be advisable also in selecting the size to consider its relation to a filing system. The book can easily be fitted with an index, according to date, as for appointments; according to alphabet, as for names and addresses and telephone numbers; or according to subject, as in the grocery salesman's price book. It is possible, of course, to use two, or possibly more, indexes in one book.

A simple leather folder, in which loose sheets may be placed, forms about as practical a system as any. The 4 x 6 size is easy to carry in the inside coat pocket and as the supply of sheets can be replenished at will, it need not be made bulky. The used sheets are kept on top, the fresh sheets at the bottom, with a blotter, trimmed to the proper size, as a partition between them.

Still more simple is the vest-pocket note system, merely

loose sheets of 3 x 5 paper carried in one of the upper vest pockets and replenished at need. When a note has been made, the sheet is placed in another pocket, awaiting its final disposal. The elaborate note systems which we often see have all, no doubt, their uses; but to many men a brief trial may prove that a few 3 x 5 cards slipped into the vest pocket constitute the most convenient method.

Ruled and Printed Memo Sheets

But "system" can be pushed a little further with advantage. In looking over old memos, a man often discovers himself recording the same sort of information.

Perhaps he is a contractor reporting upon jobs, perhaps a salesman turning in credit information. In any case, the frequent occurrence of certain items to be jotted down should warn him that standardization is possible, and lead to the adoption of a ruled or printed form. The makers of ringed books are able to supply from stock the forms prepared for day-books, journals, ledgers, sales records, expense accounts, pay-rolls, mortgage loan records, real estate listings, and the like. Forms devised for special purposes can be run off by any printing establishment.

How to Dispose of Memoranda—The Tickler

Less difficulty usually is experienced in making memoranda than in caring for them after they are made. Not a few men keep a note-book always handy, religiously jotting down items which they thereupon proceed to forget—a quite correct procedure, of course. But they then go one step further and completely ignore the memo. The memo ignored is worse than unmade, because it is deceptive. Use the tickler!

The tickler is a little filing device, indexed according to dates. It has usually two sets of guide cards, the tabs of one being printed with figures for the thirty-one days of the

month, and the other with letters for the twelve months of the year. (See Figure 1.) As each day and month pass, the respective guide card is set to the back of the box, out of the way. In order that nothing be filed for Sundays, it is well at the beginning of each month to remove the Sunday dates from the index. When one looks at his tickler each morning, that day's tab, with its contents of things for today, stands at the front of the box.

Figure 1. The Tickler

This tickler is a convenient type. Its index is arranged for the week, but one numbered consecutively from one to thirty-one could easily be substituted.

An Example of the Tickler's Use

On March 3, let us say, General Manager Smith of the Jones Construction Company is out among the trade working up new business and late in the afternoon returns to the office with these notes, his memo system being 3 x 5 cards carried in the vest pocket. (See Figure 2.)

The tickler is ready. Mr. Smith dictates to Mr. Crowell a confirmation of an appointment with the representative of the Kalamazoo Lighting Company arranged by Mr. Barnes, then drops the card behind the March 15 tab. He files the second memo relating to a bid from Hedges and Company under the March 4 date, since he must take up that item with his assistant, Mr. Brown, who has charge of bids. He has already had a promise from Mr. Carson that specifications

from Hastings and Son will reach him April 27, so he drops that memo behind the April guide, to remain there until April 1, when it will be set behind the tab number 27. The fourth memo, relating to a meeting he wishes to attend, he slips behind the March 29 tab. The general manager's mind is free to deal with big things since the details have been committed to paper.

A calendar may be combined with the tickler, the type shown in Figure 1 being especially convenient in this respect. It may be noted that the index shown here is designed for the days of one week, not for a month. If the other sort of index proves of more service, as is likely to be the case, it can easily be substituted.

Simpler Forms of the Tickler Method

The tickler here described is too elaborate for the man who has only a few details to handle. The desk calendar pad is more convenient for his purposes. This pad has a separate sheet for each day of the year, which in addition to such items as the day of the month, the day of the week, the number of days of the year passed, has blank space for memoranda. By simply turning ahead to the proper date, entries can be made for any day of the year. Such a pad is less flexible than the tickler, of course, in that items not attended to on the date specified must be copied in transferring them to later dates.

An even simpler system, which to the man with a minimum of detail is yet entirely adequate, is the weekly reminder pad. One sheet serves for a week, and blank space is provided for each day's items.

The Newspaper Man's Assignment Book

The essential feature of the tickler system is the fact that everything which must be attended to on a certain day is

Figure 2. Memo Cards for Tickler

through its use automatically brought to the attention on that day, and at no other time.

The assignment book used by newspaper editors may be mentioned in this connection, since it is really a form of tickler. This book at the beginning of the year is blank, save for dates. But from day to day as the city editor learns of political conventions, social events, lectures, public hearings, and the like, he proceeds to note them in his book for the day

DEPTS. 4 AND 6. MR. JONES	JUNE 9, 1918
6/1 Provide 6 girls Dept. 4— Sale 6/5. ✓ 6/1 Trans. 3 girls Dept. 3 to Dept. 4. 6/2 Investigate complaint silk— Mrs. Harris—on my desk. ✓ 6/2 Get rating of Farmer No. 106 for advance 6/5. ✓ 6/2 Cost of Parcels Post to Lamelton, L. I.? ✓ 6/3 See why so many errors in Dept. 4. 6/3 See why so many returns in Dept. 4. ✓ 6/5 See amount of sales made in Dept. 6 today. ✓ 6/9 Why wasn't call made for wash goods last Thurs. at Mrs. James Brown's, 107 W. E. Ave.? ✓ 6/9 Tele. Mrs. Brown and give reason, apologize. ✓ 6/10 Why is Supply Dept. short on blotters? ✓ 6/13 Mr. Jones wants entire Dept. 6 sales for 6/15. ✓ 6/13 Arrange for one more cash girl Dept. 4, 6/13. ✓ 6/15 Lights in Depts. 4 and 6 need cleaning. ✓ 6/15 Better porter service for Depts. 4 and 6. ✓ 6/16 Have windows repaired— hard to raise. ✓ 6/16 Mr. Jones wants fan in his office. ✓ 6/17 Mr. Jones will give 3 girls for Receiving Room. ✓ 6/17 Mr. Jones 10 girls for Mon- day sale on tables. ✓	Get 5 girls for sale dresses next Sat. Dept. 29. Dept. 30 wants 3 extra stock girls today only. Dept. 36 needs 3 or 4 more sales- people Sat. See why paper chute so dusty. See if Engineer repaired dumb-waiter and floor. Tell carpenter to repair packing desk 2nd floor. Have all lights cleaned on 3rd fl.— dirty. Ask Mr. Trinks about towel supply. Broken glass on table 2nd fl.—repair. Miss Smith complains slow delivery Bronx. Are girls in Dept. 14 on time morn- ings? Advance salary tomorrow Miss Neil No. 1817. Trans. next Mon. Miss Ahl, 2149, to Dept. 36. Why wasn't call made last Thurs. for wash goods Mrs. James Brown, 107 W. E. Ave.? Tele. Mrs. Brown and give reason, apologize.
(a)	(b)

Figure 3. The Memo System Devised by a Busy Department Store Superintendent

scheduled. Later on as these dates are reached, such items serve as assignments for reporters. This simple device, if used methodically, insures well-filled columns to the readers and frequently a valuable "scoop" to the paper.

A Department Store Superintendent's Methods

The system devised by E. A. Colby, who as superintendent of Lord and Taylor's large department store necessarily handles much detail, merits attention as another special form of the tickler. On his rounds through the store Superintendent Colby carries a small loose-leaf memo book, with a page reserved for each department; the number and the name of the department head appear at the top. (See Figure 3a.) When a department head makes a request, the superintendent turns to the page designated, enters the date, the request, and the date when action is desired.

Upon Mr. Colby's return to the office his secretary transcribes the various items upon sheets of the same size but dated consecutively, entering each item upon the second sheet according to the time when action upon it is desired. For example, Mr. Jones, called upon June 1, makes two requests, one of them for immediate action, which the secretary enters upon the sheet for that day, the other for four days later, which is entered upon the June 5 page. Every morning, therefore, Superintendent Colby has before him the list of items which, accumulating upon this page for some time past, demand action today. (See Figure 3b.) By glancing at the sheets of later date he can tell at any time what items have been scheduled for these days and make his plans accordingly.

"My assistant uses the same system," adds Mr. Colby. "In this way I am constantly aware of what he is doing, and should he or I or both of us be absent for any reason, anyone could pick up the sheet for that day and proceed with our work in good order."

The Tickler as a Business Getter

The tickler method may be used in many other ways. Resourceful salesmen, for instance, utilize it in some such form as shown in Figure 4, to "establish a point of contact" with their prospects. Such a list, slightly modified in form, is perhaps even more useful to the assistant sales manager.

NAME Samuel Randall ADDRESS Elmore, N.Y.
 POSITION Machinery Buyer FIRM Clark, Hodge

that
 of Collins,
 of us.

Figure 4. Alphabetical Filing

Information concerning various customers filed alphabetically in this way furnishes the sales manager a point of contact.

Incoming Material

Memoranda by no means exhaust the list of details to be handled by the executive. Letters, circulars, catalogues, books, and trade papers flow into his office incessantly. What is to be done with them?

The one best way here, of course, is to use a filing system. Systematic filing, by means of which orderly storage and swift and accurate reference are secured for the daily accumulations of letters and records of all sorts, has been an indispensable part of the growth of modern business. The improvement in filing methods has been almost incredible.

Systematic Filing a Matter of Course in Careful Business

Our grandfathers jabbed the firm's letters upon hooks or stowed them away in some pigeonhole or drawer. It is scarcely more than a generation ago that the box file was introduced, with its cover opening like a book and a set of manila sheets tabbed alphabetically; and the flat file, much the same in style but more substantial and elaborate. Today the vertical file, papers arranged on edge in filing cases of wood or of steel built in standardized size and form, is practically universal in all well-managed business houses, large or small. Progressive concerns regard it as an essential part of their work to devise a system fitted to their particular organization and to provide for its competent administration.

All this should have a lesson for the executive in the management of his personal memoranda. If system is good for the general organization, it is equally good for the work of the man who administers the organization—or a division of it.

Apply the Lesson to Your Own Work

Yet many executives have failed to learn this lesson. Even when the correspondence, records, memoranda of the organization, are handled with the utmost care and efficiency, their personal offices often exhibit astonishing lack of system. In not a few offices most of the material referred to above is simply piled up anywhere. The plan seems easy enough, but, judged by results, it is grinding hard. No one can afford to dig through dust-covered heaps every time he needs something, and yet he cannot run the risk of forgetting that the information is available, or of ignoring it entirely because he is too lazy to hunt for it.

The executive should have his own filing system planned according to a simple but complete scheme of classification—he will probably find the alphabetic method most convenient—and kept in a properly arranged vertical cabinet. A single

unit file, fitted with twenty-six guides, lettered alphabetically, will care very satisfactorily for the average man's personal correspondence, and perhaps leave space which is available for other purposes.

The vertical filing cabinet itself may be had in either wood or metal, in colors to match the regular office furniture, in cap size or letter size, and in varying numbers of sections, such as single units, two sections vertical, or three sections horizontal. With this variety of patterns available, one need not encounter serious difficulty in fitting the vertical cabinet into his office equipment.

The more bulky catalogues, together with books and such trade papers as are preserved, are preferably stored upon shelves. Bookcase units to match the files can be used if the additional expense is not too great. When shelves cannot otherwise be arranged conveniently, a small revolving bookcase often will solve the problem.

The equipment here described enables the executive to keep the incoming material under strict control as it moves across his desk to its final destination—a file, a shelf, or the waste-paper basket.

✓ **The Idea File—Mental Staleness and Its Antidotes)**

The executive at the head of a progressive enterprise gives of himself freely. He scatters enthusiasm, bright sayings, point-driving stories, and big ideas here and there as he goes along. After a time the disquieting thought is apt to present itself that he is becoming stale; he has given but has not grown; he is in danger of mental bankruptcy.

Since to continue effective he must be fertile in new ideas, it is well to inquire what system, if any, will aid him in meeting the demand. What shall he do, for instance, with the choice bits of information which come along daily? An advertising man finds in his mail an unusually pulling form

letter. An engineer sees in his technical paper an article on better results from coal. A works superintendent learns how a manager in Pittsburgh, by opening up a dead-end job, secures a higher grade of applicants. Shall such items, the results of much thought and costly experiment on the part of other men, escape him? With his own puzzling questions to settle, shall he merely say helplessly: "If I could only lay my hands on that article I was reading somewhere last month—."

Digging through piles of trade papers in search of what he knows is in there somewhere, or vaguely trying to remember its location, is poor business. Such material should be filed.

The scrap-book has been discarded as inefficient, partly because it commonly has no scheme of indexing. The envelope system, in which each subject or topic has its particular envelope, is so time-consuming and laborious that few persons keep it going consistently. The vertical file, however, offers a device both easy and rapid.

The Retailer Keeps Up to Date

In one of the smaller cities retailer Norling, let us say, owns a department store which he wants to make the up-to-date store of that region. In thinking over the matter, he decides that the vital problems of his business center around the following topics:

1. Buying methods
2. Care of stock
3. Store equipment
4. Newspaper advertising
5. Direct advertising
6. Window displays
7. Salesmanship
8. Special sales
9. Handling employees
10. Mail-order competition

11. Charge accounts
12. Delivery problems
13. Store leaks
14. Accounting

Accordingly, he secures a single unit vertical file and with some pressboard guides indexes it by writing on the respective tabs the foregoing titles. When he next reads in his trade paper the details of how a Mr. Cowley in Nebraska is winning mail-order trade from a city competitor, he files the sheet under "Mail-order competition." In the same paper he finds reproduced the prize-winning display window of a recent contest, and he slips this picture into "Window displays." His mind becomes more and more alert, because he is now an active seeker of ideas; and his business becomes more and more profitable, because he puts into service the most productive ideas of many merchants.

✓ **The Idea File in Operation**

When the idea file is used extensively, the best way is merely to mark with a number only the articles desired, leaving to a secretary the clipping and filing. In case these items are found in a book from which it is not convenient to remove the leaves, the executive places the file number on a blank page which, for the time being, serves as a book-mark, and indicates by pencil on the margin the paragraphs or sentences to be copied.

When the material preserved consists of miscellaneous clippings and quotations, a vertical letter file is appropriate. But suppose the ideas one wishes to save are his own, jotted down here and there on memo? The letter size file is then cumbersome, and a card index, 3 x 5, 4 x 6, or 5 x 8, corresponding to the size of his memo paper, is more satisfactory. This index, of course, will also serve for clippings, provided these are folded. Such a "brain box" is capable of aiding a

busy man considerably, and in order to make a start in its use he need only draw up a list of his problems which there-upon serves as the index.

An Increased Supply of Facts

A real estate operator, for instance, in trying to interest prospects in his suburban houses, encounters such objections as "can't afford to buy," "neighborhood undesirable," "too far from the city," "climate unhealthful," and the like. Worse still, he finds his regular sales canvass becoming stale. Accordingly, he takes a dozen guide cards, 4 x 6 size, let us say, to correspond with his memo paper, writes these stock objections on the tabs, puts aside another set of cards for "liveners," and places them all in a twenty-five cent card index.

In reading the evening paper soon afterwards, he learns through the social columns that Mrs. De Style has just given a garden party to the smart set, whose names are mentioned. This item quickly finds its way behind the "Neighborhood undesirable" tab; it will prove itself good ammunition later. In a health report which comes to his attention soon afterwards appears a column of unusually favorable statistics; into the "Climate unhealthful" place this goes. One dull afternoon he digs into the tax records and the material there unearthed, a broadside in its strength of conviction, he slips behind the "Can't afford to buy" tab. A clever little story emphasizing the distinction between house and home, he files away as a "Freshener." What the real estate operator really does here is to build up an auxiliary brain. His index furnishes him definite and copious information which results in more houses sold.

A Loose-Leaf Idea File

An idea file can very readily be made of a loose-leaf notebook, properly indexed. Although as a usual thing this will

not prove so convenient as the regular filing case, it possesses certain advantages and is mentioned here chiefly to emphasize the fact that in form the idea file admits of considerable variation.

"It's almost impossible for me to remember the hundred and one plans I have ahead of me—and to file a thing often means to lose sight of it," says D. B. Otzen, a progressive Chicago executive. "An every-day loose-leaf binder solved my problem.

"The plans I want to use are condensed and rewritten on loose-leaf sheets, and filed. I use a separate page for each subject, containing both my own and the other man's new ideas. When a particular method has been worked out and adapted, I tear out the corresponding page—so that only 'live' material stays in the book.

"Thumbing through my 'brain partner' three or four times a month jogs up the memory. Here are the very plans I

Subject	Subhead
Title	Author
Source	Date
Remarks:	

Figure 5. An Index Card for Books and Magazines

This card when filed serves to introduce system into a man's reading. The filling out of the "Remarks" tends to impress the information upon the mind and the index is useful for locating articles when desired later.

want, when I want them. The binder saves my time, suggests new ideas, or shows where I have neglected opportunities that might make hundreds of dollars for us."

An Index for Books and Articles

A reader who wishes to preserve his trade papers in bound form instead of removing certain pages from each issue and filing them, or who consults books from which it is impracticable to remove pages, may utilize a card index in keeping track of particular articles. A classification according to subjects, with whatever subheads may be desired under each, is drawn up in the same way as for the idea file. Here, however, instead of the material itself being filed, a 3 x 5 card is filled out by which the material can be located. (See Figure 5.)

Conclusion

The method of recording items for reference does not much matter—the letter file, the card index, the ringed notebook, the loose-leaf scrap-book, the desk drawer, or even the vest pocket. But *does he let valuable ideas slip away from him*, or does he catch them and have them at hand when needed? That is the real crux of the problem faced by all men in business. The executive, whether the head of a house or a department manager and whatever his line of business, is in a stream of business-getting ideas. Beyond question he can use some form of brain-box with profit.

While we have been setting into operation the various methods discussed thus far, what has happened to the detail which pours in upon our desks? In large measure it has already been cared for.

EXERCISES

Methods You Are Using

It is well, first of all, to know what methods you are actually following. Suppose you take stock, using Test Chart 1 for this purpose.

FOR THE PURPOSE OF—	I Now Use—
Making memoranda	
Caring for memoranda	
Disposing of incoming material	
Keeping tab on good ideas	

Test Chart I. How I Am Handling Details

In view of what this chart shows, do you succeed in keeping the big things in mind, the details on paper? Or do you find yourself trying to remember everything? Do you make embarrassing mistakes, such as forgetting social engagements? Do you have casual lapses of memory, such as letting slip the special order promised? Are you nervous, haunted with vague feelings that something is being forgotten? Most important of all, is your output limited because the handling of details is left unstandardized?

Not Too Much Apparatus

The array of apparatus found on display at the stationery store and described in the catalogues, circulars, and books issued by the manufacturers is apt to prove somewhat confusing. A man can easily overload himself even with pieces of apparatus individually good. Suppose then that we subject this assortment offered us for purchase to these tests:

Simplicity: Can I easily get into the habit of using this particular device? Is it simple to operate afterwards? Can it be readily carried or stored in my office?

- Accuracy:* Can it be depended upon when used properly? What are the chances for making errors?
- Low Cost:* What is its initial cost? Its durability? The cost for its required supplies?
- Adequacy:* Does it meet my present needs? Can its capacity be expanded as I grow?
- Appropriateness:* Does it dovetail with my other pieces of apparatus so that altogether my methods of handling details represent a coherent program?

When it appears that as a result of these tests certain pieces of apparatus have been decided upon, let us list all these items in the second column of Test Chart 2. You may have selected two or more pieces of apparatus for filing purposes, or for the recording of memoranda, etc., but for the purpose of grading, these will be considered in each case as a unit. Does what you have selected for the making

ITEM	APPARATUS SELECTED	SIMPLE	ACCURATE	INEXPENSIVE	ADEQUATE	DOVETAILED
NOTE-BOOKS						
TICKLER						
FILES (regular)						
IDEA FILE						
TOTAL CREDITS	— POINTS					

Test Chart 2. Standardizing the Apparatus for Handling Details

of memoranda represent simplicity to the 100 per cent degree? If so, place a figure 5 opposite "Note-books" in the column designated "Simple." Continue in the same way with the other four tests, crediting each a 5, a 3, or whatever your selections really deserve; and then do likewise with the other three classes. A perfect score equals 100 points.

How many credits have you?

Should this grade not satisfy you, remember that it is subject to improvement at any and all times. In the school of efficiency the final marks are never entered once for all upon the books.

A Final Warning!

A fad is a good idea pressed too far. The recording and filing systems described above may become merely fads in the hand of a zealot who, without discrimination, makes a note of everything which falls under his observation and religiously files it away. One must keep perspective, and not forget the waste-basket.

The things most worth filing concern themselves with standards.

Last year as a result of several months' experimenting in your machine shop, you standardized the making of brass valves. Are these standards now your permanent possession, recorded and filed?

In your office for six weeks this spring a high-priced systematizer was replacing rule-of-thumb with standard practice. Do you *have* this standard practice, or has most of it disappeared with the expert?

Do you work out with toil and patience a practical method of getting more from your time and effort, the one best way to hire a stenographer, equip your summer camp, mix dye stuff, or write letters?

Record it and file it!

CHAPTER IV

OFFICE EQUIPMENT

The whole aim in standardizing conditions is to arrange means to eliminate duplication of effort—to make things easier—to kill off waste—to facilitate, in every possible way.
C. E. KNOEPPEL Industrial Engineer.

The Executive's Workshop

The preceding chapter was concerned with certain mechanical aids which have proved useful in the handling of details. The present chapter carries the matter of personal system a step further.

The office of an executive should be a well-arranged workshop, where, with minimum time and effort, a maximum mental output is attained. While it is true that this output, owing to its intangible nature, cannot be ticketed in the storage bins, it is none the less real. Its cost, like that of foundry castings or machine parts, varies according to the completeness with which the conditions incident to its production have been standardized.

The recognition of this fact more or less clearly has been responsible for the marked changes in the various types of office equipment which have taken place during the last decade. The executives of the present day are introducing scientific management into their personal affairs, and surrounding themselves with result-getting equipment which was unknown twenty years ago.

Let us commence with the leading article of equipment in an office, its desk.

The Office Desk

Several decades ago, as Harry A. Hoff tells us, it was the fashion to have an office desk of walnut or bird's-eye maple that stood five feet high, opened up like a safe, and had neat little boxes fitted in tiers of pigeonholes, not only in the desk itself but in either door. Filing cabinets were unknown and the worker at the desk had to keep within his immediate reach all the numerous letters, papers, and records relating to his work.

After the invention of filing cabinets, the roll-top desk came into vogue. It was an improvement on its archaic predecessor, but even the roll-top desk was an unwieldy piece of furniture which afforded too many opportunities for the storage of papers and records in its cavernous drawers.

Later came smaller desks with superstructures low enough to permit a clear view of other desks in the office. In the meantime as filing cabinets were perfected, less need existed for utilizing the desk as a storage cabinet. This consideration led finally to the modern flat-top desk, a type which is widely used in the business world today.

The "Built-to-Order" Desk

The desk is now regarded very properly as a business work-bench. Two different tendencies may be noticed as follows:

First, there is the wish to utilize every possibility of the desk, every inch of its top, every corner of its drawers, for quick, first-aid reference. To secure such complete adaptation of desk to user it is often desirable to have the desk built to order. This does not necessarily imply blue-printed specifications for some skilled cabinetmaker. Various filing equipment manufacturers have saved us from such necessity by designing "desk units." (See Figure 6.) With dozens of combinations available—in fact, one company professes to offer

8,000 possible combinations—the desk-worker selects the units which most fully satisfy his requirements, in this way building his own serviceable work-bench.

Figure 6. A Desk Built to Order

This represents one of many possible combinations, units being available for a variety of purposes.

The Desk Cleared for Action

The second tendency is the wish to have the desk *clear*, free from any accumulation or litter. To clear out the rubbish and start afresh with a clean desk constitutes a first step toward office system.

Our favorite adjective for expressing neatness, completeness, and efficiency generally is "shipshape." On a ship everything must be stowed away in its place because the space is limited—there is just room enough. When Rear-Admiral McGowan, "the business manager" of our navy, was transferred from a battleship to the office in Washington, he applied the same principles of practical efficiency he had known on shipboard.

"Why not," thought McGowan, "have an office as shipshape as a ship? If there is wisdom in having a warship

stripped for action, why not a business office? Why not be just as efficient, just as free from lost motion, on land as on water?

"Roll-top desks and pigeonholes are the foes of the do-it-now impulse," said McGowan. When he became paymaster-general the offices were full of roll-top desks and he made a request for a new equipment of desks. When it was refused he sent for a carpenter and had him saw off the tops and pigeonholes. The result—well, that may be described in the words of the private secretary of Judge Gary of the United States Steel Corporation, who has the same idea:

"That table," said Judge Gary's secretary, "reflects the state of mind of my chief as he begins his day's work—cleared for action." Its polished top bore pen, ink, and scratch pad, nothing more.

The Desk Kept Cleared for Action

Now that the desk itself has been rid of every junk-heap characteristic, the time is at hand to install a system under which accumulations will not accumulate. Material will come—receive the proper attention—then go! This system will increase the day's output and prove conducive to better sleep at night.

"One at a Time, Gentlemen!"

A litter of papers tends to create confusion, since attention is divided among a number of problems, at the expense of all. Each paper in sight is a problem awaiting solution and it automatically prods the mind to solve it. But since the attention can be focused effectively upon only one thing at a time, every paper, every task to be done, should be dealt with as callers are dealt with—one at a time and each in his turn. This requires system, which in this particular in-

Figure 7. The Day's Work File

stance is well represented by the day's work file. (See Figure 7.)

The Day's Work File

The form of the day's work file requires no special consideration, but its function is vital in desk efficiency. A place is provided for every paper, where it cannot distract the attention from other work nor fall under the gaze of curious eyes, yet where it is instantly accessible when wanted.

Each problem in hand, every piece of work requiring time should be assigned a place in the day's work file and be put there to await its turn. Practically an appointment is made with each task. In this way a simple yet effective system may be evolved from the day's work file by anyone who is willing to make the preliminary survey.

The basis of any system is analysis and classification. In planning for a day's work file, the executive must analyze his day's work. What sort of items day after day come to him for attention? In what classes can they be grouped conveniently? The answers to the latter question will serve as labels for the pockets of the file.

A General Manager Analyzes His Work

The following classification, worked out by a general manager, may prove suggestive and adaptable to individual needs.

Dictate Today. In this pocket he places every letter which is ready for dictation and which should be sent off promptly.

Dictate When Convenient. In this pocket he slips all letters which can wait. When there is a canceled appointment or some delay, he reaches into this folder and dictates possibly a half-dozen letters meanwhile.

Mr. Sheldon. Mr. Sheldon is the sales manager, so into this pocket go items pertaining to the selling department, including advertising.

Mr. Reece. This pocket is set aside for the works manager, and it receives things pertaining to the production end of the business.

Mr. Amster. This pocket is reserved for the office manager. Mr. Sheldon, Mr. Reece, and Mr. Amster have appointments with the general manager every morning, and each of them keeps a similar file in preparing for his appointment.

Mr. Olin. Mr. Olin is the systematizer. The general manager arranges special appointments with him from time to time, filing meanwhile in this pocket items which are to come up at the next conference.

Directors. The directors meet once a month on the first Monday. This date is entered in the tickler two business days beforehand, which allows the general manager ample time to get the material here filed into shape for the meeting.

Kick Meeting. The junior officials of the firm are in the habit of meeting the general manager every other week on Wednesdays, at conferences to which the name "kick meeting" has been facetiously applied. As the meetings are really constructive, this pocket receives various items other than objections.

Pending. Matters temporarily held up are filed here. Sometimes it is a quotation which is awaited, sometimes the reply to a house communication or a letter.

Specials. The additional pockets are reserved for whatever miscellaneous matters may come up. Perhaps it is an after-dinner address, or the annual business show, or a mutual

Figure 8. An Extension of the Day's Work File

benefit association organized among his workmen; in any case his secretary types a new label and pastes it upon some unused flap. When the matter has been disposed of, the pocket becomes available for a new label.

The foregoing headings prove adequate for this general manager and his position is important enough to draw a salary running well into five figures. The point to be noted,

however, is the fact that the day's work when analyzed can be classified.

Some men may prefer a more complete classification, with such a corresponding increase in pockets that a single file cannot well contain them all. In this case, a second file can be planned as a continuation of the first and kept in a lower drawer of the desk. (See Figure 8.)

A Hold-Over File

If the list of items held up for attention becomes too bulky for the day's work file, some sort of hold-over must be devised. If you have the well-arranged vertical letter-file described in Chapter III, the problem takes care of itself; but if that is not available, there are substitutes.

The expansion envelope, large-sized and made of tough stock, is one substitute. Expansion envelopes in certain patterns have a complete index, pockets being provided for each letter of the alphabet, day of the month, month of the year, etc.

The Deep Drawer Remodeled into a File

A better solution consists in remodeling that big, deep drawer found in most desks. At present it is likely to be system's arch-enemy—filled with business relics of every sort—but by removing the two wooden partitions and fitting it out with folders, it can be made over into a handy vertical file.

This drawer file can be indexed, of course, in whatever way one sees fit. With the various subjects in which we are interested written on the tabs, it serves as an idea file. Indexed according to days and months, it becomes a follow-up. Fitted with twenty-six folders alphabetized, it makes a good letter-file. Labeled with the subjects upon which we work daily, it supplements the day's work file.

Results of Good Equipment and Layout

With these appliances, simple though they are, as his aids, a man is able to hold the whip-hand over his work. He no longer goes through batches of papers in the old haphazard manner, but attacks them methodically. The various tasks on hand are there in the day's work file, each in its own compartment, some of them accumulating gradually the supplementary information required for their solution. The thing to do is thus made definite, specific. As each task is taken up it receives undivided attention.

The Disposal of Finished Work

Finished and unfinished work should not be allowed to intermix. If the finished work is left lying about one is tempted to putter at it, thereby losing that stimulus to the will which comes from dispatching a thing with finality.

A system for outgoing material must be devised. Where the messenger service is good, one basket or tray may suffice; each piece of matter dropped into the basket has its destination indicated on a sheet attached and the office boy does the rest. In other cases, a series of compartments perhaps will be arranged, each labeled "For Mr. Morris," "For Mr. Jones," "Outgoing Mail," etc. Sometimes wire baskets, the three-decker sort, are used for this purpose.

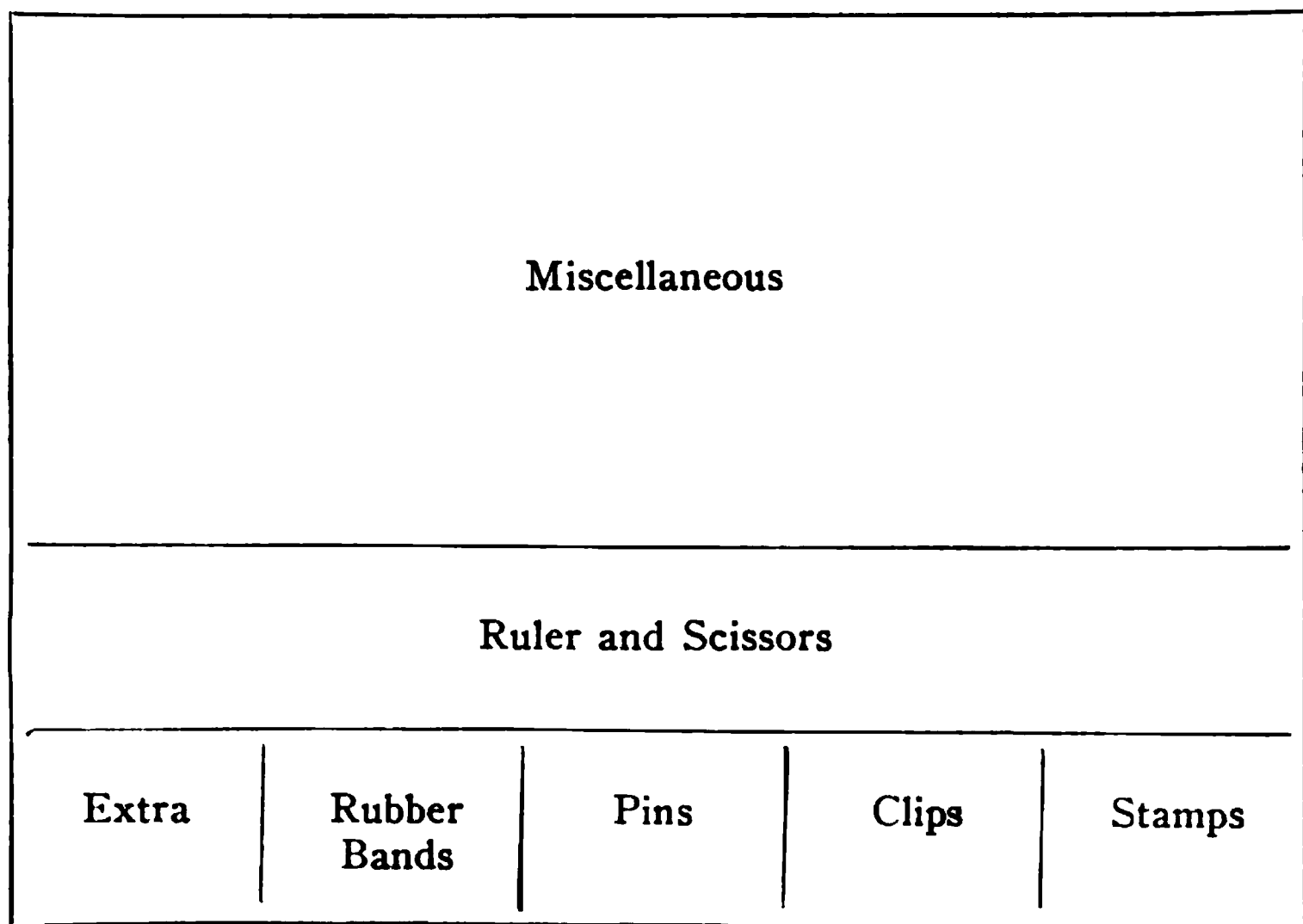
The Matter of Small Wastes

Many executives, anxious to get directly at their tasks, pay slight attention to their desk tools. In many private offices high-salaried men are tearing open letters with their fingers, sharpening pencils with a jack knife, writing with old, scratchy, steel pens—their desks littered with miscellaneous supplies, and paraphernalia in the main unused because unusable.

Take a lesson from the machine shop. Standardize the working tools.

What articles do I find absolutely essential? A rigorous answer to this question insures the worker his full kit of tools, but rids him of a number of articles which now clutter his desk drawers and desk top.

What size and quality of these articles are best? Do not leave to chance the kind of letter paper or ink or pencils that



(Front of Drawer.)

Figure 9. The Center Desk Drawer Partitioned

When compartments have been installed, the contents are not thrown into confusion with every opening and shutting of this drawer, and the reaching for articles needed becomes a matter of second nature.

you use, or keep changing the size of your memo paper. Their proper selection in the first place, by which is meant their standardization, solves the matter.

A Place for Each Desk Tool

Where shall these articles be kept? "A place for everything and everything in its place," the old motto taught us by our grandmothers, applies forcibly here for this reason: Not only can tools be secured more conveniently if stored according to some definite plan but, when they are kept regularly in their respective places, the process of reaching them when desired is rendered automatic. This results in a decided saving of the mental forces and business time of the executive.

The wide, shallow middle drawer affords a convenient location for the majority of desk tools. Special compartments in this drawer should be arranged for the things most frequently used, the partitions being made either of wood or cardboard. (See Figure 9.) It is also possible to secure from office supply houses a separate wooden tray, with numerous cups hollowed out like a money till, which slips into the shallow drawer. Until the location assigned to the various tools becomes second nature, it is well to label each compartment.

The Glass Desk Top as an Extra File

The filing system puts papers out of sight, where they will not distract the attention from the work at hand. Certain data, however, are so frequently consulted that they ought, if possible, to be kept in full view. The glass desk top affords a solution.

Or a small glass plate can be inserted in the arm rest of a chair, or the slide on a desk, and thus a place, perhaps even more convenient than the glass desk top and possessing some privacy, may be arranged for price schedules, cost figures, today's plans, or other data to which frequent reference is made.

An Architect's Office System

An architect uses the large sheet kept under this glass top as the basis of his entire system. Each job as undertaken is entered in order on the schedule sheet, receiving automatically as its number the number of the line it occupies thereon. (See Figure 10.) This number then becomes the key to everything pertaining to the particular job. Sketches and drawings, specifications, records of every kind are filed by this number, filling as many folders as may be needed, 3-1, 3-2, 3-3, etc. The schedule sheet as used in this office deserves its prominent place under the glass desk top.

Figure 10. Schedule for Desk Glass

This is the schedule sheet on which an architect keeps track of jobs ahead.
(Reproduced through courtesy of *System*.)

No doubt in every office certain material can be filed with profit under the glass top—production graphs for works managers, season schedules for sporting page editors, tables of stocks on hand for merchandise men, and fundamental statistics for purchasing agents. But this space is too limited and too prominent a flag to the attention to permit its indiscriminate assignment.

The Executive's Devices for Communication

The executive requires some appropriate system for communication, and his desk to serve him well must bring this system close at hand.

Five devices are worth mentioning in this connection: the buzzer, the telephone, the interphone or house phone, the dictograph, and the telautograph. The simplest to install is the buzzer; practically all electrical supply houses carry it and any person who understands the most simple electric wiring can install it. The location of the button should be within easy reach. If it is desired a signal code can be adopted.

The Telephone, Its Use and Abuse

The telephone is widely used—and abused too, although the quality of telephone habits is steadily rising. In managing calls in the private office, there still exists room for improvement; too much time is lost in the maneuvers of secretaries who try to get the outside executive on the wire before their own employers are called.

The telephone proves so convenient a means of communication for house men that after a time its use for outside business is seriously interfered with. The interphone overcomes this difficulty since it is independent of the public telephone system. There are several types of these interphones on the market; with practically all of these the necessary connections may be made without requiring the services of an operator.

Dictograph and Telautograph

The dictograph affords some distinct advantages in bringing business men into communication. Through its use an executive located at a central station may call several department heads into a conference over the wire.

The telautograph is a mechanical device by means of which a message written on one instrument is duplicated upon the receiving board of a second instrument located elsewhere within the organization but connected with the first instrument by electricity. Since the messages are recorded at both ends of the line, it furnishes a check upon the accuracy of intercommunications.

Still other means of communication are the pneumatic tubes, the overhead carrier, and the dumb-waiter. Information concerning all these devices may be secured from their respective manufacturers whose advertisements appear in office equipment journals. It may be well in passing to emphasize the value of a well-planned office memo blank and a smoothly working messenger service.

The Importance of Office Layout

It may seem now that the business man has his private office fully equipped. This is not yet true, for all equipment is merely a means to an end—does it get results easily and quickly?

Much depends upon the way the equipment has been arranged within the office. Are the filing cabinets over near the door, requiring several steps to reach them? Does the telephone placed by the window necessitate more walking? Does one in consulting the dictionary or the trade catalogue step around the desk? Is the most frequently used desk tool kept at the rear, not the front, of the middle desk drawer?

A Real Estate Dealer's Office Problem

This problem was met and solved ingeniously by a real estate dealer. This dealer's office was conveniently connected with that of an insurance company with which he co-operated, and which permitted him at slight expense to make use of its reception room for his callers. He had one assistant, a young

man just out of high school, who handled the stenographic and clerical work besides interesting himself in the business. The office layout as it then existed is shown in Figure 11a.

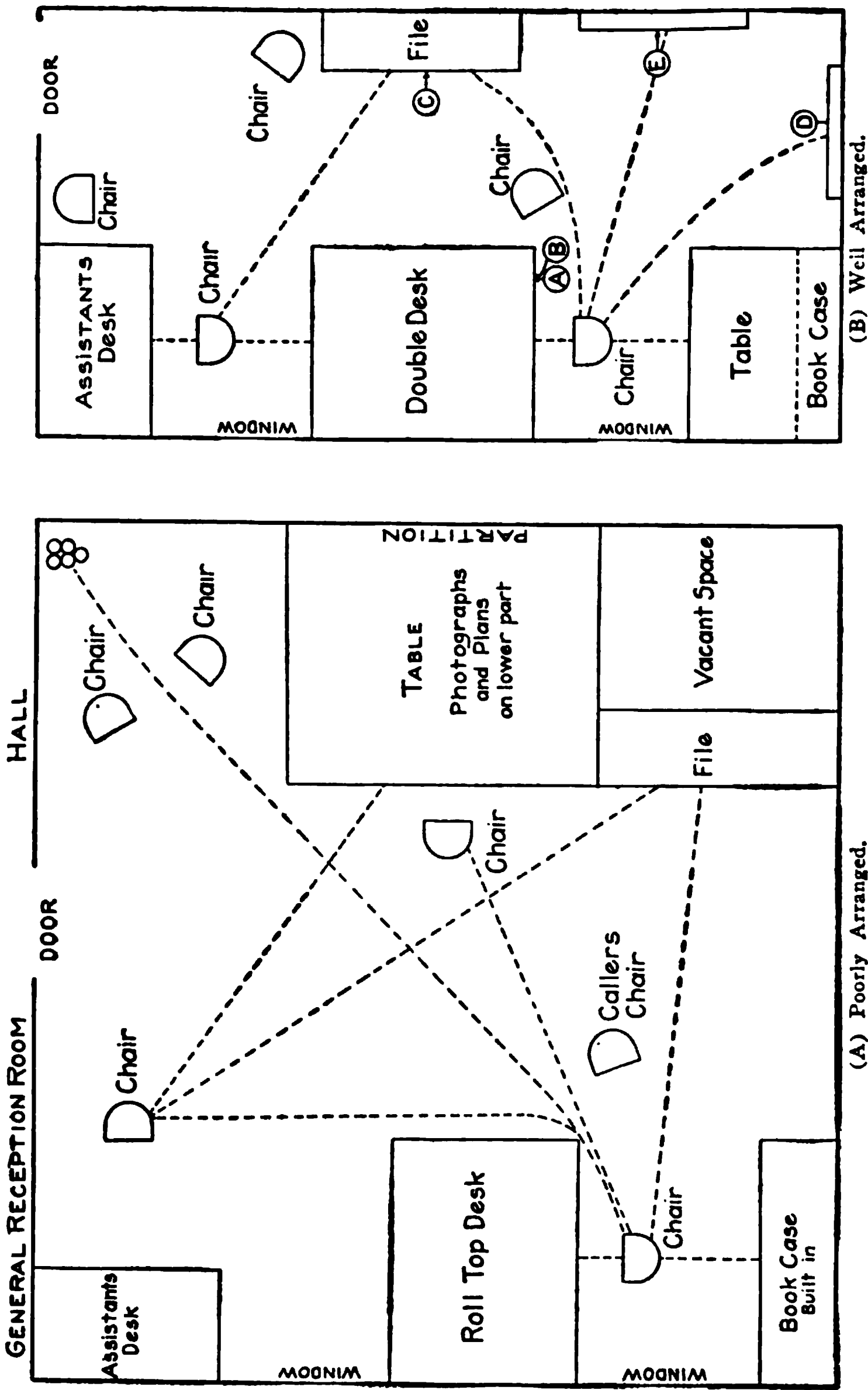
The business fell into two distinct divisions: (1) the managing of buildings for their owners, the list of properties being kept in a 4 x 6 unit and all correspondence and other records in vertical letter file units of the same filing cabinet; and (2) personal ventures, the data for which consisted of papers kept in the pigeonholes and drawers of his desk or piled on the table, and of maps which when rolled stood in the corner but otherwise were lying on the table.

In these personal ventures, the dealer would usually buy a plot, subdivide it, sell the lots at a profitable advance, and perhaps build houses on them according to the purchaser's specifications. Unless the specifications were intricate, the dealer served as his own architect, working out the plans while seated at the table.

The real estate man received notice, however, that since the manufacturer, his other neighbor, must have more space, his present office upon the expiration of the year's lease would be cut down in width by eight feet. He was about to move, when he was persuaded to study his office layout problem.

What an Investigation Revealed

Investigation revealed that during two two-hour periods selected for study he turned to his bookcase zero times; he consulted his filing cabinets five times, in each instance the 4 x 6 card index unit; he walked to the table and back eighteen times, several of these trips being for tools needed at the table but kept at the desk. He made four trips to the maps, plus a few others from file to maps or from maps to table or from desk, etc., to door. In two instances he averaged five minutes in hunting through a pile of house pictures for a certain set he wanted to show his visitor. In one instance he



(A) Poorly Arranged.

(B) Well Arranged.

Figure 11. A Real Estate Dealer's Office.

In diagram (B) the 4x6 unit occupies the first drawer to the right (A) and the material pertaining to the lots and buildings is kept in the deep drawer underneath (B), the general files at (C). The photographs at (D) and the wall maps are at (E).

took a drawer full of papers out upon his lap and spent eleven minutes hunting before he was ready to dictate. In four instances he thumbed somewhat thoughtlessly material protruding from the pigeonholes but did not carry the search further. The assistant during the same hours walked to the table three times, to confer with his chief; to the files six times, usually with reference to correspondence; and to take dictation, three times.

The Office as Rearranged

When these various trips had been plotted on a diagram and this compared with a second diagram showing how the office could be arranged, the real estate man was speedily convinced of the value of motion study and its importance to him. The new office, as rearranged after the partition was moved over eight feet, is shown in Figure 11b.

The table was moved into the corner near the desk, the bookcase was taken out and a small rack, sufficient to hold all the volumes, substituted. The filing cabinet was brought near the assistant, but the 4 x 6 card index so frequently consulted by the dealer was installed as a desk unit. The maps were taken from the corner and fitted into one of the regulation wall cabinets; any of them can now be pulled down at will and when not in use it is rolled up out of the way. The pictures once piled on a low box under the table now are attractively mounted on large display leaves, hinged so as to swing back against the wall. The architect's papers and drawings formerly kept on top of the table have been placed inside the large shallow drawer which a carpenter fitted into this table. A double desk replaces the old roll top affair, the typewriter desk has been turned half-way about and both workers use swivel chairs.

"My rent has been cut down \$350," comments the real estate man, "but that doesn't begin to represent what I've

gained. I can turn in my chair here and lay my hands on about everything I want. This deep drawer," pulling open the lower drawer of his desk, "has every lot and house I've got on sale filed there in order. This makes it easy to follow things up. The maps and pictures over there help me to get my sales talk across. And as for being crowded, we actually seem to have more room than ever."

There is nothing particularly unusual about the real estate man's problem, nor does he claim in his present office arrangement to have reached perfection. He simply applied the principles of motion study to the conditions of his daily work. This everyone may do.

Conclusion

Standardization of office conditions by facilitating and expediting necessary operations makes increase of output possible. The business man who takes hold of the matter systematically can transform his office, whatever his line of business, into an efficiently productive workshop.

EXERCISES

Simple Forms of the Day's Work File

In considering the day's work file possibly you may have been led to think it feasible only to men, like the general manager above mentioned, with many things on their hands. Such would be an incorrect view. The day's work file to be helpful need not have an elaborate index.

One successful business man depends constantly upon a file whose index has only eight tabs and five of these are specials! The three regulars are "Today's," "When convenient," and "Pending." The other tabs are labeled from time to time as special problems are undertaken.

If you want to try out the day's work file before purchasing, take a discarded letter file of the old-fashioned book type, remove the leaf covers at both side and back, substitute for the alphabetized paper

sheets an index of seven or eight stiff pressboard sheets, arranging these in such a way that the tabs will not overlap so as to hide each other, and provide yourself with a few plain gummed labels.

An analysis of your work is next to be made.

What sort of work are you doing? Can you classify it under some such heads as the general manager did, or more simply, as in the case just cited? These headings you now write on the gummed labels, sticking them upon the tabs in order. If the file does not work smoothly the chances are you have not correctly analyzed your work, although this, it may be added, need cause no particular concern since the classification admits of modification until the arrangement proved most practical has been secured.

An Inventory of Your Desk Tools

Suppose we now take an inventory of the desk tools, using for this purpose Test Chart 3. Complete the list of articles by writing in the names of whatever additional items the search through your desk reveals. Indicate by check marks your answers in the next three columns. Consider the matter with some care before checking the replies of the last two columns, since questions such as the following have to be answered:

When reordering supplies, paper for instance, do you depend upon guesswork or upon exact information, recorded?

Are you found wasting ten minutes' time trying to tie some package with a piece of string it required five cents of your time to save, or using for scratch paper an old envelope carefully preserved at a cost in time of four sheets of the regulation pad?

Does the shallow center drawer contain *all* the small tools in constant use, or do these occupy various locations? Are these tools kept in the most convenient order, or are the frequently used clips well to the back of the drawer, with the rarely used sealing wax occupying a prominent place at the front? Every motion ought to count; and while the sealing wax no doubt is handy the clips ought to be more handy.

Other Aids

How about a dictionary and some reference books? In a certain publishing house, I found the editorial staff without a dictionary! The business man unless his tastes are scholarly need not invest in Webster's International, The Century, or The New Standard, but at any rate some abridged edition of these deserves a place in his office.

Each business also has its own special reference works, some of which at least ought to be accessible.

ARTICLES	These I Have	These I Require	These are Standardized Size, Quality, Location
Pencils Pens Ink Blotters Ruler Erasers Clips Pins Rubber bands Twine Letter opener Scissors Paper-weight Colored pencils Pencil sharpener Penknife Screw-driver Library paste Drawing instruments Sealing-wax Stationery Sponge Scratch-paper Memo paper Cross-ruled paper Paper-punch			

Test Chart 3. An Inventory of Desk Tools

A dictionary holder adjusted to the corner of the desk keeps the book ready for consultation and a revolving bookcase near the desk makes it easy to get at a number of books. However, much depends here upon special needs. Lack of space usually prevents our having within reach everything we might need, so we must give first place

to those we use most. To the business man this means as a usual thing that the revolving bookcase must give way to an extra chair for callers.

Lost Motion in Your Own Office

How much lost motion can you eliminate from your office? Possibly you say none at all, that everything runs smoothly as a clock. That was the way the real estate dealer felt about his office, until he found out.

On a sheet of paper draw a diagram of your present layout. Use cross-ruled paper if you have it at hand, or rule a sheet lightly with pencil on the scale of one or two feet to the half-inch. Block in with heavy lines the various pieces of furniture, each in its relative location. Have someone record your chief movements about the office during several of what may be taken as sample hours. On the diagram represent these by dotted lines. What does this motion study tell you about yourself?

When this question has had its answer, take a second sheet of paper ruled like the first. Block in with heavy lines the outside limits of your office, indicating the walls, door, and windows. On the same scale, cut out small paper squares to represent its chief articles of furniture. Now maneuver these paper squares around like pieces on a chess-board, until the best possible layout is discovered. An ideal solution may not be attainable, the lighting in one otherwise perfect plan being poor, while the arrangement which secures 100 per cent lighting entails two extra steps in getting at the files. Under careful manipulation, however, such difficulties can be minimized, though scarcely avoided in their entirety. Standardized conditions in this case mean simply the one best combination, not the ideal location for every unit in that combination.

Very few offices are able to score 100 per cent in this layout test.

CHAPTER V

THE PRIVATE SECRETARY

It is hard to get a man to let go of detail—to grow up into control—to think for subordinates who do not think.—
EDWARD B. BUTLER, President of Butler Brothers.

John D. Rockefeller's Growth as an Executive

The business man needs not merely an expanded capacity for handling detail personally but, as he advances, the sense of proportion as to the relative value of his own effort.

The career of John D. Rockefeller, since it well illustrates this significant, though gradual change with respect to details, merits the close consideration of any business man who, like Mr. Rockefeller, would advance to high position.

The refinery in which he first began the oil business was a small affair. The pushing of the business, the buying and the selling, fell to Mr. Rockefeller, and not a single detail believed to affect either profit or loss escaped his hawklike scrutiny. "He had the frugal man's hatred of waste and disorder, of middleman and unnecessary manipulation," Miss Tarbell in her admirable "History of the Standard Oil Company" points out, "and he began a vigorous elimination of these from his business. The residuum that other refineries let run into the ground he sold. Old iron found its way to the junk shop. He bought his oil directly from the wells. He made his own barrels. He watched and saved and contrived."

The Standard Oil "Trust"

The business under such watchful management expanded, and here again Mr. Rockefeller showed his business acumen—

he expanded with it. "The entire business was placed in 1882 in the hands of nine trustees, of whom Mr. Rockefeller was president. These trustees have always acted as if they were nine partners in a business, and the only persons concerned in it. . . . Below them, and sifting things for their eyes, were committees which dealt with the various departments of the business."

It has always been a tenet of Mr. Rockefeller's business faith to select as his associates the "big" men, the ones who had shown that they could succeed. The evolution of his vast business has been parallel with the devolution of much responsibility upon subordinates. Although the methods of organization changed often, this rule remained a law of the Medes and Persians, unalterable and unanswerable.

The Headship of a Big Organization

How did this new policy, gradually introduced as the business expanded, affect Mr. Rockefeller personally? Rockefeller, himself, explains his policy as follows:

"My methods of attending to business matters differed from those of most well-conducted merchants of my time," says Mr. Rockefeller, in his "Random Reminiscences," "and allowed me more freedom. Even after the chief affairs of the Standard Oil Company were moved to New York, I spent most of my summers at our home in Cleveland, and I do still. I would come to New York when my presence seemed necessary, but for the most part I kept in touch with the business through our own telegraph wires, and was left free to attend to many things which interested me—among others, the making of paths, the planting of trees, and the setting out of little forests of seedlings."

At first, Mr. Rockefeller handled details by attending to them personally; afterwards he handled details by delegating them.

The Executive's Chief Business

(If men are to advance, they must learn to share tasks) for advancement in business means assuming control of activities too large for the individual to swing unaided. The man at the head of a business, or at the head of a department, becomes necessarily an organizer. He learns to shift the burden of detail upon subordinates and to systematize routine so that everyday results are made automatic.

Organization is one of the best ways to discipline details.

The executive in his desire for maximum accomplishment is thus called outside his private office to study his organization as a whole. If his desk is overcrowded, if he finds that in spite of system and speeding up, the day's routine leaves him no time for constructive effort, his organization is imperfect. (See Figure 12a.) The same personnel, when differently organized, he may handle with effectiveness—and find a little time perhaps in consequence, to cultivate an acquaintance with his golf club. (See Figure 12b.) This is quite as it should be.

"The executive's chief business," says President Ripley of the Santa Fe, "is to (organize, deputize, and supervise.)"

The Utilization of Assistants

Of special importance among the subordinates who free the executive from detail is the private secretary. His position is comparatively new, an outgrowth of large-scale business. Executives found after a time that a variety of minor matters could be delegated to confidential and properly qualified assistants. So excellent upon the whole have been the results attained that it is very common among progressive concerns to find private secretaries whose day's activities are approximately as follows:

(a) The general manager, in the first instance, is overcrowded and his executive energy is being wasted. The reorganization shown in the second instance enables him to do his best work.

(b)

Figure 12. A Matter of Organization

(Reproduced by courtesy of C. E. Knappell.)

The Duties of a Private Secretary

The secretary finds awaiting him upon his arrival all mail for the executive office. This he opens and sorts, redirecting part of it to other departments, filing away temporarily such letters as require the securing of information before reply, answering all the minor communications, and placing upon the chief's desk those he deems sufficiently important or personal. Even with the latter he assists by preparing digests of their contents or securing from the files the record of whatever previous correspondence may be needed. The reply itself he very commonly writes out in full from the briefest directions given by his employer. This method of handling correspondence, the executive learns, is a great time-saver.

Often the secretary prepares the materials for a banquet address or the annual report of the corporation; sometimes he even writes the address or report in full. He does the editing and proof-reading for sundry articles; or works up from such sources of information as trade papers, government reports, current magazines, or reference books in the library the answers to all sorts of questions. The average executive has reason to appreciate a secretary who is able to do such literary and research work, since otherwise much of it would be left undone.

The secretary meets the callers, ushers in some of them to his chief's presence without delay, wards off tactfully those who are unwelcome, refers others to the proper departments, attends to many inquiries himself, and makes appointments for others with his chief.

The secretary takes care of telephone calls, records appointments and sees that they are kept, installs and keeps in condition the proper filing systems, follows up orders, and maps out the day's work. The secretary of a well-known insurance president remarked, "There is practically no business of Mr. McCall's that does not pass through my hands."

The Money Value of Secretarial Services

The modern executive recognizes such services as indispensable. It is said that Vice-President Tarbell of the Equitable pays his secretary a salary of \$12,000 per year, and that the late H. H. Rogers valued his secretary's services at \$30,000 per year. No doubt these two secretaries, and others who draw similar salaries, are well worth such amounts to their employers. But the point to be emphasized is that it is sound economy whatever the scale of the business to shift routine duties from the more expensive man at the top to a subordinate whose time is less costly.

Each minute of the working day of an executive drawing \$5,000 a year costs 4.6 cents. If he spends fifteen minutes in the routine of opening the morning mail, it means 69 cents a day, \$4.14 a week, \$207 during the business year.

If this man wastes thirty minutes hunting for some correspondence which should have been filed and promptly produced by a clerk; another thirty minutes on unimportant material which could readily have been attended to by someone else; a third thirty minutes answering correspondence of a merely routine nature; a fourth thirty minutes hunting for telephone numbers, waiting for calls, or answering unimportant calls; a fifth thirty minutes in ridding himself of certain visitors who should have been diplomatically side-tracked at the start, his concern loses thereby \$6.90 daily, \$2,070 annually.

The Secretary Promotes His Chief's Efficiency

This loss as computed by no means represents fully the injury sustained. The various annoyances to which an executive under the above conditions is subjected break up the day, distract the attention until it becomes difficult to concentrate, in short, put a damper upon creative work. Worse still, the executive thus annoyed and yet feeling, as he should, that the

firm pays him for constructive work, is apt after a time to develop as a sort of shield a caustic tone toward callers, a curtness over the telephone, a slowness in answering communications which costs his firm dear in terms of lost goodwill.

As a means of eliminating losses of money or goodwill and at the same time enlarging the executive's output of creative work and increasing his ability to co-operate, the private secretary is invaluable. The degree to which the executive is able to utilize the services of the secretary often measures his own advancement or undoing.

Selecting a Secretary—The "Hire and Fire" Policy

The importance of the secretary's place in the scheme of things demands that care be exercised in his selection. If the "hire and fire" policy works out badly in factories, as all progressive employers agree, it is even worse when practiced in the private office, for the secretary brought in thus on impulse may be little able to perform the valuable services required, and on the other hand, owing to the confidential nature of his duties, his summary ejection may prove very unwise.

It is a particularly reckless form of the "hire and fire" policy to leave the matter to some friend or employment bureau or secretarial school. Temperament in the executive as well as in the applicant is too important to permit the opinion of a third person to be final.

The best way is to make the selection according to a systematized procedure. The executive who sets out to standardize the methods of hiring used by his concern, including his own methods in the selection of a secretary, thereby treats applicants fairly since such methods place employees where they are best fitted to work. He promotes the interests of the firm because in the long run such an employment plan

secures the best possible services for a given cost. And he advances his own interests since, as John Wanamaker so well puts it, "the degree and height of his mastery and success accord absolutely with the number and efficiency of the staff which rises, in decreasing numerical strata, to support himself at the top."

Where to Find Suitable Applicants

In securing applicants such possible sources may be employed as want advertisements, particularly those placed in the best mediums, employment bureaus of high rank which specialize in commercial positions, and commercial departments in the public high schools, business colleges, secretarial schools, colleges and universities, especially those offering commercial training. The promotion of some present employee, one of the best of all methods, will be mentioned later in another connection.

The Secretary's Qualifications

The qualifications to be sought in the applicant vary somewhat with the position, the salary to be paid, etc., but the following may be mentioned as important:

Education: What has been the applicant's schooling? What can be said of his general knowledge?

Professional attainments: Is he an efficient stenographer? a neat, rapid, and accurate typist? Does he understand filing systems, and the use of such office equipment as adding machines, duplicators, and addressing machines? Has he a thorough knowledge of business correspondence? Does he know something of bookkeeping, advertising, business management, and of subjects or sciences particularly connected with our own line of business? What has been his experience?

Dependability: Is he a person whom we could take into our full confidence? Would he be discreet, incorruptible, loyal? Could his memory and methods of recording be

depended upon for such everyday details as appointments, the keeping of promises, producing papers when wanted?

Initiative: Is he able to think for himself? Has he energy plus imagination, or would he wait to be told what to do and stop at that? Can he look ahead? Is he able to stimulate others and direct them as well?

Tact: Does this applicant possess sympathy, courtesy, politeness, patience, diplomacy? In handling our correspondence and our callers what sort of an impression would he make? Would he be able to get along with our own people?

Personal traits: How about his voice, his facial expression, his manner of standing or sitting, his way of speaking? Is he personally neat and cleanly and of some refinement? Has he good health?

Teachableness: Would this applicant be willing and eager to learn or does he think he knows it all? Would it be effort wasted to try to get him to improve or has he the power of growth?

Interest in our business: Has he real interest in this line of business, in our firm in particular, and in his prospective employer's personal needs and requirements? Would he study this position and make our interest his own, or does he look upon it merely as a means of filling in time, a possible livelihood?

The Rating of the Various Applicants

The answers to some of these questions can be secured very readily from the preliminary letter of application, others from the references submitted, many from the personal interview, while for certain others written examinations should be devised. The tests devised by the United States Civil Service Commission for the selection of stenographers will prove helpful in this connection.

The decision as to which applicant is to be preferred depends finally upon his rating as a whole. One applicant will have shown himself unusually proficient in taking dictation, another has been found exceptionally qualified in filing sys-

tems, or handling callers, or thorough knowledge of the business, etc. The employer should not expect an applicant to grade 100 per cent in all respects—such a prodigy is not to be found—but should tender the position to the one whose abilities most nearly meet the requirements.

Standardized Conditions for the Secretary

Upon taking up his new work the private secretary should be provided with the equipment which renders good work possible. The same rule applies to the secretary's position as applies—we have seen—to the office conditions of the executive, namely: to secure superior output, provide standardized conditions.

A typewriter desk into which the machine drops when not in use, a holder for the stenographer's note-book, a comfortable chair, good light, a supply of stationery, carbons, clips, scissors, and the like indicate the more common requirements. In addition there are certain supplies which, while they may not be termed essentials, yet make for increased effectiveness. Should the letterheads be stored in one drawer, the envelopes in another, the carbon paper in a third, and the carbon sheets in their original box or, what would amount to much the same in the end, all piled into the same drawer, the assembling of these materials in the typewriter entails much waste effort.

A desk drawer fitted with partitions, inclined toward the rear, keeps the sheets separate and speeds up the process of assembling.

Owing to the mass of details which comes to the private secretary for attention, he can very well use much of the equipment, such as the day's work file and the tickler, discussed in previous chapters. In fact, not a few private secretaries are really executives, with stenographers to take their dictation and filing clerks under their direction. Needless to

say, such secretaries can profitably be supplied with the necessary equipment which aids in systematizing an executive's work.

The Secretary's Desk with Respect to Office Layout

In arranging the office layout, the secretary's desk should be carefully fitted into the scheme of things. Executives often prefer that the secretary have a separate room, connected by buzzer, telephone, and door, in order that the annoyance of the typewriter may be removed and visitors may be received in privacy. For those who do not follow this plan, the arrangement of the real estate office shown on page 58 is worth noting. With the office arranged in this way, the secretary on his revolving chair is able to turn easily to the typewriter or the double desk. This plan provides considerable working space and a convenient arrangement in handling telephone calls or dictation.

Training as the Source of Competent Secretaries

It was a far-sighted corporation head who not long since remarked, "We can't hire executives; we have to grow them." His remark applies with considerable force to the private secretary. The secretary perfectly trained and competent to perform at once his most valuable services is simply not to be hired.

Frequently it will be found that the qualifications mentioned on a preceding page are possessed in the main by some above-average stenographer already in the firm's employ. She is, let us say, an excellent typist, rapid and accurate in taking dictation, absolutely dependable, ambitious, has graduated from the local high school and during her four years' tenure has shown herself most loyal to the interests of our firm. Would it not be more feasible to promote her to this secretaryship than to seek elsewhere?

The Best Possible Results from a Given Cost

"Impossible," some will claim. "We invariably employ graduates of secretarial schools at salaries of \$35 to \$40 per week and they certainly make poor enough secretaries, as our experience goes to prove." Very true, no doubt. In some executive offices even \$90 per week would be far too little to pay for secretarial services. Nevertheless, the man whose duties and whose importance in the organization justifies an appropriation not exceeding \$20 a week for secretarial assistance often insists upon a \$75-a-week secretary. No others, he claims, are competent! The point here insisted upon is not that secretaries be poorly paid, far from that. But every executive is justified, according to his position, in making a certain expenditure for secretarial services and no more. It is his duty to secure maximum results within that sum. Very frequently this implies that the above-average stenographer should be promoted and afforded some little training for her new position.

A Special Training Course

There are a few excellent books devoted to secretarial work, and the study of their specific directions and suggestions simplifies the problem of training. There is such a thing as the professional spirit which, once we have it, leads us on, makes us grow. In the present instance such a spirit once stirred into being by the study of these secretarial books* may after a time transform the promising beginner into a competent secretary.

Books on secretarial training may very well be followed by works on filing and indexing. The student of such works does not need to be told that accuracy in filing is important, and is able within a comparatively short time to develop a competency with filing systems considerably beyond that which the employer alone would be able to insure. With

such knowledge the secretary can aid materially in working out the form and arrangement of the employer's personal files.

Handling Correspondence Without Dictation

The goal commonly set for the secretary by his employer is the ability to handle correspondence without dictation. Too often the employer discovers, however, that such correspondence is so error-laden as to be unsafe or trite and exasperating with its customary "Your letter of the 13th received and contents noted," and "Hoping to be favored with your reply."

While the word for word dictation by the executive may at first seem the easiest solution it is really no solution at all; the problem is to fit the secretary to take hold for himself. The principles upon which effective correspondence depends have been presented in several excellent texts and the study of these, even the reading of one of them, cannot fail to secure improvement. The articles devoted to sales correspondence in the current magazines will be found helpful. This part of his training provides the secretary with standards for correspondence, numerous directions as to how these standards are to be applied, and stimulus to make such applications daily.

A Knowledge of the Company's Business

The business letter, however, depends not alone on the secretary's knowing how to write but also on his knowing what to write about, in other words, his knowledge of this particular business and its daily operation. An employer complained of a certain private secretary because "She doesn't somehow get into the swing of things." It was discovered later that during her two years' employment she never went further into the plant than the first floor of the office building in the front yard. The purchasing, the advertising, and the accounting departments on the second floor, the twenty-acre plant with its belching furnaces and tall chimneys, were to

her a closed book. She was unable to get into the swing of things because she was never in touch with the business.

It may seem far-fetched to include a trip through the establishment, with an explanation of its details of operation in the training of the private secretary. Yet this is a good beginning. This training can be excellently supplemented by a book which treats of the particular industry; by the catalogues, booklets, and other material prepared by the firm's advertising department; and by the executive's instruction as he works through the day's routine

Instructions by the Executive

The last is by far the most important in illuminating the business and its particular requirements, and it need not be at all formal and time-consuming. For much of it the executive need only do his thinking aloud. Since the secretary's most important duty concerns correspondence, the chief purpose of the instruction will be to teach the secretary to handle the bulk of the correspondence himself.

"Here's a customer who sets up one of our No. 2 Oil Kings," declares the executive, showing the secretary a letter he has just received, "only to find the fly-wheel broken to pieces. He'll be pretty anxious, don't you suppose, to get a new wheel, the same number R 3249, so he can get right to work? We'll express him one, at once." Executive dictates letter to customer.

"Now this order ought to go over to the shipping department this morning," he continues, "so they can get started on it." Dictates order.

"But what's going to become of our profits, Mr. Smith," he inquires, "if we let the railroad companies break up our machines like that? I guess you'd better make a copy of this letter for Mr. Jones, our claims man."

A day or two later the executive says, "Here's another

one of those complaints about an Oil King damaged in transit; this time it's this gear-wheel," pointing to a diagram of the engine in which its parts are numbered, K 3056. "Let's see, how'd we settle that other case?" he inquires in perplexity. The secretary volunteers most of the information, the executive supplying a detail here and there.

"Yes, yes," the manager says, "that's what we did. I guess you can handle this in the same way, yourself."

The secretary with a new sense of responsibility, consults certain carbons in the files and after a time has an excellent letter waiting to be signed.

"This letter to Thompson is all right," comments the executive when he comes to sign it. "That's the way to talk to our customers." Then he adds, "How about shipping and claims?"

The secretary is much confused. In his enthusiasm over the letter he has overlooked these entirely.

"Thompson out there on his farm wouldn't care much for your good letter unless he got that wheel, would he, Mr. Smith?" The executive laughs heartily; then he adds with seriousness "and as for the claims, if the company lost its profits it couldn't pay our salaries."

Thus the training goes on.

The Developing of Initiative and Responsibility

"But," someone objects, "such a nuisance! I could dictate the letters myself with far less time and trouble."

True, but shortsighted. The real issue here is not this one letter but tomorrow's letters, next week's letters, that interminable procession of letters which the secretary once trained can handle but which otherwise will tie the executive to his desk. From this, the correct point of view, training is as capital invested at compound interest.

Accordingly, the executive for a time keeps the secretary's

work under scrutiny, looking for errors and making suggestions particularly at the time of signing the letters. Mistakes will appear, and some letters, even under the reasonable leeway allowed every subordinate, will have to be retyped. Yet the scrutiny can gradually be relaxed. Before long his secretary is answering letters on which he has jotted, "Xpress K 3128," "O K," "Refer to Childs," or "Same terms as usual," and after a time even these brief directions are rendered unnecessary. It is the sense of responsibility placed upon the secretary, the knowledge that within reasonable limits his discretion has full sway but that the employer has confidence in his judgment, which stirs his initiative and makes him feel competent to render most valuable service.

The Complaint that Secretaries Do Not Think

"But," the objector interposes once more, "all this is assuming that the secretary is unusually brilliant. Now in my experience, while I would not go so far as to say they are without brains, the average secretary does not think. 'Think! think!' I have had to tell one secretary after another."

Let us analyze this complaint which has been voiced in one form or another by many executives—the detailed and reiterated directions these secretaries require, their lack of insight into the day's work. It is granted that no brief could be maintained for all private secretaries; their ranks have been invaded by the incompetent and all are human. But as a rule the failure to get things done as the executive wants them is because he does not know himself what he wants, *consistently*. It is the lack of system, of standards, which is really to blame for the tangle, since the whim of the moment, and not a clear-cut standard, determines whether the typing or the choice of letterhead is to please him.

In order to satisfy the unsystematic man the secretary must be a mind reader.

The Unsystematic Man Hard to Satisfy

Many secretaries, it is true, are adept in this art. When the look of boredom on the employer's face has darkened into just the proper shade, they deftly interrupt the caller and maneuver him towards the door. When the employer comes in full of "pep," they bring out loads of work, but in sizable lots; when he is on "fag ends," they side-track the irritating complaint.

To get the most benefit from a secretary's services the wise executive will himself lead the way in co-operation. By utilizing various short-cut methods and standardizing his own part of the team's procedure he can save the secretary's time and strength; this means economical operation.

William A. Field Defines Executive Success

Some business men, it is true, do not wish to standardize their own operations, just as some others do not know how to delegate work. Yet it is precisely the exercise of these two arts, delegating and standardizing, which is the executive's business.

"Analyze the career of the successful business manager," says William A. Field of the Illinois Steel Company, "and you will find that he has done two things: by elimination and selection he has fitted competent men to the places at which the work focuses; by system he has so shifted detail to the shoulders of subordinates as still to keep the essential facts under his own hand."

A Training School for the Coming Executive

There are few positions, indeed, which do not afford some opportunity to practice the two activities specified by Superintendent Field as the essentials of executive success. Even the young manager whose force is but a corporal's guard, even the beginner in business who dictates a few letters to a

stenographer, has the opportunity of fitting people to places where the work focuses and of shifting detail to the shoulders of subordinates so as still to keep the essential facts under his own hand.

The man who trains himself to work effectively with but a single subordinate is at the same time developing his power as an executive. The vast bulk of tasks, termed collectively the firm's business, he later will become able to subdivide and delegate as he now does the work heaped upon his office desk. The principle is simple, yet its influence is most far reaching upon the executive's daily accomplishment and his ultimate achievement.

EXERCISES

The Waste of Petty Annoyances

A drizzle of petty annoyances always irritated the late Cyrus H. McCormick, although he could stand undaunted under a cloudburst of adversity. Superfluous words in a telegram, a bill a few cents too large, the loss of a carpet slipper, were things which made him storm. "He made more fuss over a pin-prick," declared one of his valets, "than he did over a surgical operation."

Do the petty odds and ends of business get on your nerves?

Is all the energy with which you come down to the office used up on trifling matters, leaving you irritated with yourself and all your co-workers?

Are important initiatives and decisions side-tracked and lost sight of while the devil of routine rules you with his iron fork?

Delegate to subordinates these routine tasks, and hold the subordinates responsible for their stewardship.

Important and Unimportant Tasks

In carrying out this plan the executive is called upon to distinguish between important and unimportant tasks. As William James points out, what makes a thing important or unimportant to a man is something which no rules can teach in advance. Still, a pretty safe guide is to keep your chief purpose in mind for use as a stand-

solved is how the secretarial services purchased by this sum can be employed most productively. For this purpose Test Chart 5 has been devised. It contains ten questions, to each of which a possible credit of ten points attaches. Consider your methods critically as you answer these questions one by one, and credit yourself in the column at the right a 10, a 5, a 2, or whatever your actual practice in the light of standard practice will justify. A perfect score is 100 points. What do your credits total?

QUESTIONS	CREDITS
1. Do I know how to delegate work?.....	
2. Have I organized thoroughly the duties of my present position?.....	
3. Is my work such that the quality of secretarial services makes an important difference in results?	
4. Do the means which I employ secure desirable applicants?	
5. Are my various selection tests reasonably certain to secure the applicant best qualified?.....	
6. Does my secretary work under standardized conditions with respect to equipment?.....	
7. Do I know consistently what I want in secretarial results?	
8. Is my secretary assuming the responsibilities he should?	
9. Am I cultivating the secretary's initiative?.....	
10. Were I my secretary would I hold my employer's habits and methods of work in high respect?...	
TOTAL.....	

Test Chart 5. Securing Best Results from the Private Secretary

CHAPTER VI

A SERVICEABLE MEMORY

The test of a good memory is that it shall be serviceable; that the mind shall be furnished and ready with just the sort of facts which may be needed, and free from the encumbrances of useless, irrelevant, or distracting material.—
CARL EMIL SEASHORE, Professor of Psychology.

The Tool Which Is Used Most of All

The executive may lighten the burden of details by means of ingenious mechanical aids; he may standardize to a high degree his working conditions; he may surround himself with able co-workers; yet there will remain, after all, certain things which must be entrusted to memory.

It is safe to say that the business man's most immediate need is a serviceable memory—which means a store of useful knowledge always at hand. Such a memory, whether material or acquired, is an invaluable aid to success.

"In the practical as in the theoretic life," declares William James with much truth, "the man whose acquisitions stick is the man who is always achieving and advancing, whilst his neighbors, spending most of their time in relearning what they once knew, but have forgotten, simply hold their own."

The Memory that Gets Results

The great importance and obvious utility of a "good" memory have led many otherwise sensible men to foolish extremes in their pursuit of the kind of memory that they most admire. To the man who fails to remember names and faces, a remarkable facility in greeting mere acquaintances of a dozen years ago by name and station seems the *summum*

bonum of recollection. Many politicians have gained popularity and fame because of such readiness; William Jennings Bryan, whose memory is both colossal and exact, is a shining example of this type. Henry Clay had the same sort of memory.

The men who can learn things by heart are another source of envy to the average executive. He reads with wistful attention how Macaulay could repeat the "Lady of the Lake" after hearing it read once and how other literary geniuses

Knew the great uncles of Moses,
And the dates of the Wars of the Roses.

The vital question in such cases is not: "How did these men do it," but "What good would such a memory do me?" The lesson to be learned is that what these men knew and remembered related to their life-work and interest and was relevant in a natural way to their respective jobs. Their memories were good because they were *serviceable*.

If knowing that Mr. Brown's first name is George and that his family has moved to a charming suburb will help to do that important piece of business with him, it is worth remembering. If a bit from Gray's "Elegy" will aid you to put over that big contract, memorize the potent verse. If not, why clutter up the orderly array of your mental files with rubbish?

Improving the Memory

In setting out in a very practical way to improve the memory, that is, to make it more serviceable, we shall save both time and effort by distinguishing at the outset between general retentiveness and methods of using the memory.

It is the conviction of William James, the most eminent psychologist that America has produced, that, "No amount of culture would seem capable of modifying a man's general retentiveness. This is a physiological quality, given once for all

with his organization, and which he can never hope to change. It differs no doubt in disease and health; and it is a fact of observation that it is better in fresh and vigorous hours than when we are fagged or ill. We may say, then, that a man's native tenacity will fluctuate somewhat with his hygiene, and that whatever is good for his tone of health will also be good for his memory. We may even say that whatever amount of intellectual exercise is bracing to the general tone and nutrition of the brain will also be profitable to the general retentiveness. But more than this we cannot say; and this, it is obvious, is far less than most people believe."

This does not mean that the memory cannot be improved. What is to be emphasized, however, is the means by which improvement can be brought about. Abandon attempts to strengthen a general power of memory. Accept without murmur whatever native capacity for retention you have, but make the most of it by a proper system.

The Man Who Remembers Is He Who Knows How

This solution need discourage no one. As Professor Seashore points out, "All normal persons have sufficient capacity, if only they will use it. To be concrete, the average man does not use above 10 per cent of his actual inherited capacity for memory. He wastes the 90 per cent by violating natural laws of remembering." Through his superior method of recording facts, one of limited native retentiveness, in consequence, may outstrip by far his well-endowed but planless neighbor. System does it. The man who remembers is the man who knows how.

Why "Memory Systems" Have Long Flourished

Not a few so-called memory systems have been at one time or another enthusiastically exploited, sometimes with most extravagant claims. The Loissette system, perhaps the

most famous of these, once enjoyed a tremendous vogue. People willingly paid fifty dollars for its set of lessons, which now, though published in book form at the modest price of one dollar, are utterly neglected.

These memory devices usually depend upon some framework, which is mechanically but thoroughly drilled into the mind. Then the fact to be remembered is associated through some fanciful connection with the framework, which connection is supposed to recall it.

The Operation of a Typical Memory System

The figure alphabet, as an example, will indicate how such a scheme operates. Each digit is represented by one or more letters, as:

1,	2,	3,	4,	5,	6,	7,	8,	9,	0.
t,	n,	m,	r,	l,	sh,	g,	f,	b,	s,
d,					j,	k,	v,	p,	c,
					ch,	c,		z,	
					g,	qu.			

"To briefly show its use," explains Mr. Pick as quoted by Professor James, "suppose it is desired to fix 1,142 feet in a second as the velocity of sound; t, t, r, n, are the letters and order required. Fill up with vowels forming a phrase, like 'tight run' and connect it by some such flight of the imagination as, that if a man tried to keep up with the velocity of sound, he would have a tight run. When you recall this a few days later great care must be taken not to get confused with the velocity of light, nor to think he had a *hard* run which would be 3,000 feet too fast."

The reader may object to this, saying that he could much more easily learn the number 1,142 outright. But the advocate comes right back at him. "This plan will *develop* your memory. What would you not give to recall"—and he names a list of things dear to our ambitions. Many business men yield to the argument, and go naively about their lessons.

Curious Attempts to Strengthen the Memory

The purchasing agent cons the dictionary, believing that when he has doubled the number of new words he can learn in thirty minutes, his ability to remember price quotations will be increased. The accountant in his attempt to recall tables of figures practices on odd combinations of the alphabet, *rry*, *rtz*, *cycyz*. Who does not, in fact every day, catch himself pigeonholing some useless scrap of information—just to strengthen his memory?

Thurlow Weed's Method

A classic example of such practice is the experience of Thurlow Weed, the famous journalist and politician of reconstruction days. Before we inquire whether or not he was right, let us see what he did. His account of it reads thus:

"I could remember nothing. Dates, names, appointments, faces—everything escaped me. I said to my wife, 'Catherine, I shall never make a successful politician, for I cannot remember, and that is a prime necessity of politicians.' My wife told me I must train my memory. So when I came home that night, I sat down alone and spent fifteen minutes trying silently to recall with accuracy the principal events of the day. I could remember but little at first; now I remember that I could not then recall what I had for breakfast. After a few days' practice I found I could recall more. Events came back to me more minutely, more accurately, and more vividly than at first. After a fortnight or so of this Catherine said, 'Why don't you relate to me the events of the day, instead of recalling them to yourself? It would be interesting, and my interest in it would be a stimulus to you.' Having great respect for my wife's opinion, I began a habit of oral confession, as it were, which was continued for almost fifty years. Every night, the last thing before retiring, I told her everything I could remember that had happened to me or about me during the day. I generally recalled the dishes I had had for breakfast, dinner, and tea; the people I had seen and what they had said; the editorials I had written for my paper, giving her a brief abstract of them. I mentioned all the letters I had sent and received,

and the very language used, as nearly as possible; when I had walked or ridden—I told her everything that had come within my observation. I found I could say my lessons better and better every year, and instead of the practice growing irksome, it became a pleasure to go over again the events of the day. I am indebted to this discipline for a memory of somewhat unusual tenacity, and I recommend the practice to all who wish to store up facts, or expect to have much to do with influencing men."

A Wasteful Method

This experience of Mr. Weed's suggests one or two queries. In the first place, was this tenacious memory which Mr. Weed developed due to an improvement in his native capacity to remember, or to his paying more careful attention to things during the day, knowing that he was to be held responsible for them that evening? William James says the latter explanation is true, that Mr. Weed's physiological retentiveness was in no way changed by his mental exercise.

In the second place, was there not an enormous amount of waste effort involved? Think of the time needed, every evening, for such exhaustive resurrection of the day's experiences! Not every man, besides, can count upon a "Mrs. Weed" with complaisancy, sympathy, and *time* to bear her part in the process.

As a rule, we should avoid the waste involved in methods such as Mr. Weed employed and seek the quickest and easiest ways for making the memory serviceable.

Since the man who remembers is the man who knows how, it is the problem of finding the best method of knowing how that presents itself here for analysis and solution. An idea, reaching the brain through the organs of sight, hearing, taste, etc., makes an *impression*. It then comes into contact with ideas already present, but after a period of *association* with them, it loses its character of a newcomer and becomes pigeonholed in the mental equipment. It should remain, how-

ever, responsive to *recall*, and be able to gain *recognition* when it answers the summons. The process of remembering thus consists of four steps—impression, association, recall, and recognition—which will be discussed in turn.)

RULES OF IMPRESSION

1. Become Thoroughly Interested

The school boy who, parrot-like, repeats his tables while thinking of that swimming hole under the old elm, cannot somehow make those tables stick. He has been cheated of results by mental laziness, the same enemy which years later still pursues him as a business man. Superficiality, dilettantism, and lack of interest, are bogs in which forgetfulness has rank growth.

Attention and interest are the handmaidens of memory.

In the front rank of men with a genius for acquiring information stood Roosevelt. He had an infinite passion for facts, an insatiable thirst for information; he laid violent hands on details, and he promptly pumped a visitor dry. The readiness of his memory, in turn, was something to wonder at; whether it concerned his rough-riders, or a patrolman appointed during police commissioner days, or some strange bird from the upper Amazon, his mind had it ever ready at hand. But consider the man—his energy, his enthusiasm, his dynamic interest in things!

The man who remembers well is alert, interested, mentally alive.

The first rule of impression, accordingly, deals with just this thing; do you have the aim, the live purpose, the incentive which prepares the mind as a seed bed for impressions?

2. Be a Specialist, Ignorant of Many Things

The world is so broad, its demands so numerous, that the man interested in everything spreads himself out too thin. He

lacks effectiveness, and in pronounced cases becomes merely a distracted incompetent.

General interest must be sharpened down to specific interest.

What shall these specific interests be? One's vocational choice largely determines this. It is presumed he has decided upon some phase of merchandising, banking, manufacturing, or any other of his thousand possibilities, as a particular career, and he now tests out every claimant for attention by the standard of his major purpose. Does it bear a vital connection to this purpose? If not, it is excluded, even though whole segments of his possible sphere are shorn away.

3. Concentrate Upon the Essentials of Your Specialty

Even within his specialty, one does not memorize everything. Part of the information he needs is in book form, part is filed away in his cabinet, while part is jotted down on his tickler. The mind is then free for high grade work, because the burden of detail has been turned over to mechanical aids.

Keep the big things in mind—the little things on paper.

This requires that ideas be ranked according to their importance; that thinking be organized; in other words, that, with his main purpose as a guide, one shall determine what is significant and what is trivial. "The only *a priori* advice," says James, "that can be given to a man embarking on life with a certain purpose, is the somewhat barren counsel: 'Be sure that in the circumstances that meet you, you attend to the *right* ones for your purpose.' To pick out the right ones is the measure of the man. The genius is simply he to whom, when he opens his eyes upon the world, the 'right' characters are the prominent ones. The fool is he who, with the same purpose as the genius, infallibly gets his attention tangled amid the accidents."

4. Master as You Go

Retentiveness of memory is somewhat dependent upon the particular channel through which the consciousness is reached. One man remembers best a name when he reads it, another when he hears it, another when he writes it down. With most persons, a combination of impressions is best. Listen to the newcomer's name and the sound of his voice, feel the quality of his hand-shake, notice his appearance, write his name down at the first opportunity.

Impress the mind through all possible channels. The result sought is a clear-cut, definite impression, far different from the blurred image with which lazy, superficial learning-by-rote provides the mind. Observe sharply, concentrate, grasp the idea in a single firm impression.

RULES OF ASSOCIATION

1. Analyze for Principles

After impression, comes association. To the efficient memorizer, the process here is strikingly like the keeping of a stores room. The incoming shipments are not dumped pell-mell into the stores room—at least this method is barred among our leading business houses—but are arranged systematically. Classifications, often of an elaborate sort with appropriate symbols, are prepared, with bins labeled to correspond and a perpetual inventory for the stores clerk. This gets results. So it is in the mind, when it comes to dealing with mental materials.

There is nothing occult about this, no mysterious "faculty" of memory. The brain cells under the impulse of ideas simply arrange themselves in a new order, or, as it is commonly stated, form a path. "Retention," says William James, "is not a fact of the mental order at all. It is a purely physical phenomenon, a morphological feature, the presence of these

'paths' in the finest recesses of the brain's tissue." The more prominent paths are in general those over which the trains of thought more frequently move.

Principles are trunk lines running through mental territory.

A principle does not become a principle until it is found to serve as a center around which details may be grouped, a sort of trunk line to which the details are feeders. Just as the chief stores clerk in deciding what to do with a package of screws or bolt of cloth works according to some general system of classification, so in arranging the mental material we proceed according to a certain rule.

2. Discover Relationships

The reader who at the time of commencing this book, let us say, owns a Ford, but later buys a car of a different make, is not thereby obliged to relearn the automobile. The two cars in many respects are similar, and he soon becomes familiar with the differences.

By noting similarities and differences the new idea is readily assimilated to the old.

In noting similarities and differences, one proceeds according to the principle of relationship. Such relationship may be illustrated very briefly as follows:

Whole and part { automobile
Timkin bearings

Cause and effect { banana peel
we fell on Broadway

Abstract and concrete { heavy
pig iron

Genus and species { accountant
John Smith, C.P.A.

In remembering a series of freight bills, we think of them as expenses; in making several purchases at the corner grocery store, we think of them perhaps as parts of a picnic dinner.

3. Make Use of Associations

These associations may be obvious, as when Miss Smith is mentally tabbed "stenographer"; or far-fetched as was the connection between "umbrella" and "door-way" which a certain man accustomed to forgetting his umbrella, drilled into his mind with successful effect.

The so-called memory systems are usually nothing beyond more or less artificial methods of connecting things. In remembering numbers, Loiset, for instance, gives such illustrations as these: the height of Pike's Peak is 14,147 feet; observe that the number consists of two fourteens and a half of fourteen. Fusi-yama, the noted volcano of Japan, is 12,365 feet high; observe that this number is made up of the number of months and days in the year—12 and 365.

Things are retained more easily and more tenaciously when bound together in a net-work.

"The 'secret of a good memory'," says William James, "is thus the secret of forming diverse and multiple associations with every fact we care to retain. But this forming of associations with a fact, what is it but thinking about the fact as much as possible? Briefly, then, of two men with the same outward experiences and the same amount of mere native capacity, the one who thinks over his experiences the most, and weaves them into systematic relations with each other, will be the one with the best memory. The merchant remembers prices, the politician other politician's speeches and votes; and both remember with a copiousness which amazes outsiders, but which the amount of thinking they bestow upon these subjects easily explains."

4. Bind Elements Into Large Units

These principles of memorizing were applied quite consistently by the late Edward H. Harriman, and they go far to explain his amazing memory. But Mr. Harriman's ability well illustrates the fourth principle, which we may state as the final rule of association.

"When you jump from one thing to another," Mr. Harriman was asked, "do you have to stop and think and adjust yourself to the new mental condition created by the consideration of a totally different subject?"

"No," he answered.

"You are not conscious of any change in the speed of the mental machinery, as it were? No break of any kind when you decide what to do in this case and immediately what to do in the next—jumping from a matter in New York City to some engineering problem in Utah or California?"

"No."

"How do you do it?" I asked.

"I don't know. I think," he went on meditatively, "that the mind is like these—what d'ye call 'em on this desk?—these pigeonholes. A man comes to me. I listen and decide on what to do; and then—it goes into a pigeonhole."

"And it's always there? No trouble in finding it again at any time?"

"It's always there." He was thinking, obviously looking for an explanation. "It's always there. Whenever I need it again I find it there."

"And you don't know how you do it?"

"I don't know how I do it," he repeated after me, almost hypnotically. Evidently he was trying to find out. But after a moment he shook his head and said: "But there are fewer pigeonholes, I think."

The secret, if one prefer to call it such, is revealed in the

words, "There are fewer pigeonholes." He bound elements into larger units.

To Mr. Harriman, an earth embankment was not an earth embankment but a straight track between two stations. This straight track between two stations was no isolated detail, but a part of the Union Pacific Railroad. And this in turn was but a link in that world-wide transportation system which was Mr. Harriman's goal. Spikes, rails, and ties he bound into construction units; construction units in turn he bound into railway units; and these finally he thought of as parts of a vast system—an orderly yet progressive sequence in thought.

RULES OF RECALL

1. Recall With Accuracy

Ideas impressed upon the brain and woven into its fiber, are retained; in other words, they stick. It is not, however, for that purpose that one remembers. His aim in memorizing ideas is to have them when he wants them. Retention is valuable only as it insures recall. The problem now becomes how to employ methods which will insure this.

The stock keeper of the mental stores, like any subordinate under lax discipline, is apt to fall into slothful habits. When called upon to produce a certain idea with which he has been intrusted, he perhaps returns a hazy, blurred copy of the original. Should this be accepted, he degenerates into still more negligent ways, until finally the requisitions drawn upon him are filled with whatever causes least exertion. Such easy-going and slovenly recall must be resolutely prohibited from the first; "rule thy servant or he shall rule thee."

2. Concentrate on the Relevant

Scarce has inaccuracy been avoided before another and yet more serious difficulty arises. The mental stores are re-

turned accurately enough, but without discrimination. As Mr. Business Man recalls the directors' meeting, the scene as a whole comes clearly before him, then some certain incident connected with the chairman, next the chairman's fishing party followed by his own thrilling capture of a black bass, until finally, Mr. Business Man finds himself mind-wandering far from his original starting point.

To recall completely all one has ever experienced would require as many years as this experience originally occupied. Abbreviation and condensation are absolutely necessary; the four hours directors' meeting can with profit be boiled down possibly to four minutes, and as for the black bass—none of it for the business day! The essentials only are wanted, and all else which presents itself should be repressed as irrelevant.

3. Repeat the Recall Frequently

The rather common way of memorizing is to repeat again and again the impression. Drill, drill, drill! It is felt that memorizing should precede thinking, for logically ought we not store the mind with the necessary raw materials before trying to reflect upon them? "The most important part of every Musselman's training," says Ratzel, "is to learn the Koran, by which must be understood learning it by heart, for it would be wrong to wish to understand the Koran till one knew it by heart."

This process is extremely wasteful. It emphasizes impressions, whereas what is desired is ability to recall. One recall is worth a dozen impressions.

The correct procedure is first to stamp the mind with a clear impression, then to repeat not the impression but the recall. In this way one develops a wonderful set of grappling hooks, prompt and accurate in bringing to the surface what is wanted.

4. Seek Out Clues Persistently

In not a few cases, however, when one seeks to recall a memory image, no response is secured; the image apparently is lost. Again, it trembles on the threshold, but does not come forth. What can be done in such cases?

Mere blind persistence has a value, just as the man of the house, in looking for a pack of cards may go from room to room turning things up-side-down, and perhaps after a time, come upon said pack in a table drawer. But all this means hard work, hence, as Seashore points out, if the memory image is not at command so soon as sought we all too readily conclude that we cannot reach it.

The old injunction of try, try again has much merit here. But not planless trying, no mere stolid turning over of stones. The object sought is not lost in some isolated crevice of the mind, but has connected itself with some other object, which in turn becomes available as a clue. Seek connections systematically. Go through the mind in the manner of Sherlock Holmes.

RULES OF RECOGNITION

1. Recognize with Vividness

After recall comes recognition. The image desired has risen from the mental recesses, and is now at command. Shall one think, "Yes, this is right," in a dry sort of way, and then think no more?

Scarcely! Our friend comes to mind not as two mere words, "John Smith," a colorless image, but as some one with brown eyes, wavy hair, cheviot suit, walking stick, and so on, not forgetting the cheery smile. He is a real flesh and blood person.

The image, abundant in detail and intense in its recall, enables its possessor to relive the scene as in the original; it makes recognition realistic and tangible.

2. Express the Recognition Appropriately

In the most subtle way, mind and body are knit together. Every thought tends to express itself in action, every action tends to influence thought.

The staid executive who in telling football stories some Sunday afternoon for the benefit of his boys, crouches on the rug as he illustrates the fierceness of his tackling just in front of Old Eli's goal, does more than carry his listeners with him. He makes the story real to himself. He is reliving the scene, with all its appropriate actions.

Most of our mental furnishings, in fact, were gained through action of some sort, be it even so prosaic as walking or smiling; and the recognition of these ideas stored in memory gains in vividness as these same actions accompany the recall.

3. (Trust Your Memory)

But perhaps after all the idea recognized is the wrong one; are we not possibly being tricked? Questions such as this once raised are so hard to down that not a few persons are always uneasy with the lurking suspicion that their memory is playing them false.

What stores clerk bent on filling his requisitions with accuracy and dispatch would improve, if continually suspected, questioned, and accused? Would not this miasma of doubt finally break down his moral fiber, make him in reality the inaccurate, hopeless, incompetent he was suspected of being?

Just so with the memory. Doubt clogs its action, confidence inspires it to better service. Do not therefore be anxious, for your memory under good treatment will serve you well.

4. Forget the Useless

The memory, however trustworthy it may be, deals with the past. But the efficient man lives in the present, and

looks forward to the future. Let the dead past bury its dead. What cares he for it save as it aids him now and serves as a guide to the future.

The memory, accordingly, must be selective. While holding tenaciously those items which are worth holding, it must nevertheless refuse to thumb over in the files day after day the transactions long since closed. Such useless accumulations, dead timber, should be allowed to float gently out upon the stream of thought into oblivion. A good memory and a good "forgettery" are firm allies.

Few persons have the resolution to do this. Like the hermit of the story books, always collecting but never throwing anything away, the majority run the risk of guarding with jealous care a junk heap. Yet such watchful guarding, besides being wasteful, is unnecessary because the idea forgotten still serves us.

We are the sum total of all our yesterdays, and even the idea lost beyond recall has had its influence in making us what we are. "Although the ready memory is a great blessing to its possessor," says William James, "the vaguer memory of a subject, of having had to do with it, of its neighborhood, and of where we may go to recover it again, constitutes in most men and women the chief fruit of their education." This chief fruit is not lost through the admonition, "keep the mental decks cleared for action."

But the mind in parting with its useless material does experience a feeling of relief, and its energy freed from the task of watchful waiting can deal with the needs of today. In getting through the day's work and the year's work, forgetting is as important as remembering.

Summary of Rules

The rules of memory culture will now be summarized, that the reader more readily may make them his own. (See Figure 13.)

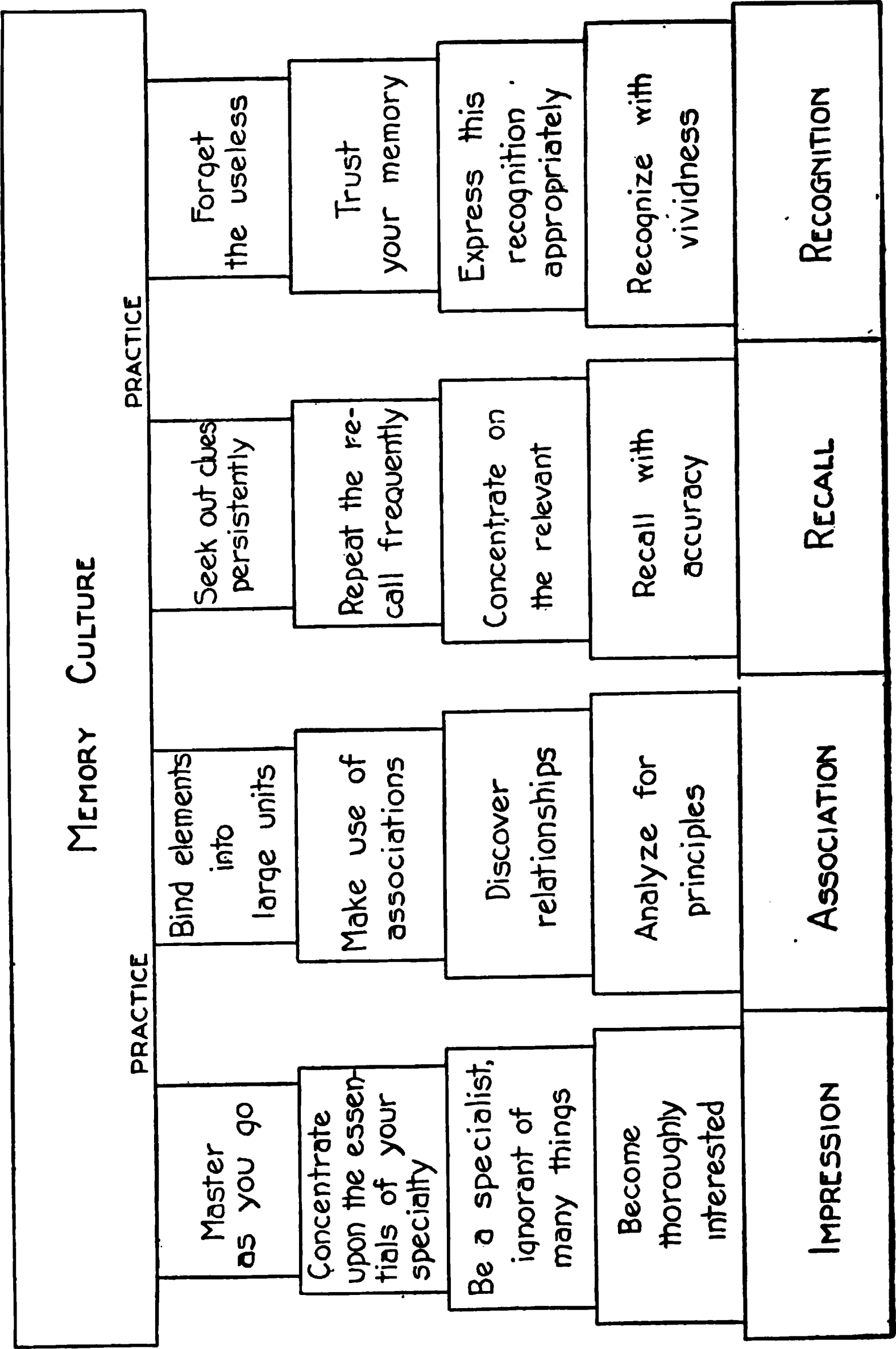


Figure 13. The Various Steps in Memory Culture are Here Summarized

The steps in memory culture are direct, certain, perfectly practical, and the goal itself is worthy of attainment. But the only way to reach this goal is through practice, practice, practice.

EXERCISES

Conditions of Memorizing

Some evening when you are "dead tired" memorize the following, or some other verse if you are familiar with this, noting the time required before, with the book closed, you can repeat it with confidence:

The boast of heraldry, the pomp of pow'r,
And all that beauty, all that wealth e'er gave,
Await alike the inevitable hour.
The paths of glory lead but to the grave.

The next morning after such a good night's sleep that you feel thoroughly refreshed, memorize in a similar way this or some other verse, of about the same difficulty as the first:

Full many a gem of purest ray serene
The dark unfathom'd caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.

Compare the amount of time required. After two weeks have elapsed, see which verse you can recall more completely.

What do you conclude as to fatigue versus freshness, ill-health versus vitality, in making things stick in the mind?

Methods of Memorizing

Here are three columns of words which you are to study in each case three minutes, exactly as directed:

porosity	recreant	reagent
plebeian	matadore	anachronism
hawser	diurnal	harbinger
platoon	posteria	postulate
thesaurus	stereoptical	erysipelas

Study Column 1 by sound. Listen carefully as someone spells the words aloud to you, trying to remember each sound; have him con-

tinue the spelling, you meanwhile trying to impress the ear, until the three minutes have elapsed. How many words do you remember? How many do you spell correctly?

Study Column 2 visually. Look sharply at the letters, the number of them in each word, their appearance and order, trying hard for three minutes to impress the eye. How many can you remember? Write correctly?

Study Column 3 by a combined method. Spell them aloud to yourself, scrutinize the letters sharply, write them down. Appeal this time to ear, eye, and muscle. How many can you remember? Spell correctly?

Compare the results. In impressing your mind which approach seems the best? Should you wish to recall names more readily, what suggestions do you draw from this exercise?

As a further test we have here four columns of ten words each:

I	II	III	IV
long	short	good	no
sweet	sour	tall	old
hot	cold	up	night
early	late	lost	little
wet	dry	day	sea
thin	thick	yes	found
in	out	now	short
top	bottom	big	bad
buy	sell	true	own
more	less	land	false

Study intently Columns I and II, then cover this second column with a sheet of paper. How long a time is required before, by looking at Column I meanwhile, you can repeat correctly in order each word in Column II?

Study now with equal care and for the same length of time Columns III and IV, then covering the latter with a paper and looking at Column III, how many words of Column IV can you repeat correctly in order?

Why is the second test so much more difficult than the first? What principles of memorizing are here illustrated?

Not Just Plodding, But Planning

When you deliberately sit down and consciously exercise your memory, "keep your eye on the ball." Do not think about indefinite or incongruous things. Take one definite starting point and group other details around it. Narrow your field of recognition and recol-

lection, and multiply all the associations which bear upon the topic you wish to master.

When our government began making frames of airplanes for the Liberty Motor—Samuel Blythe tells us in the *Saturday Evening Post*—they needed spruce, and more spruce—and needed it “seasoned.” The wet, sappy wood was no good for the purpose and the only known seasoning process was nature’s own which took from twelve to eighteen months.

Some experts went to work on the problem and found a way to shorten the time to four months, but even that was too long. Then “the best brains in the country tackled the job and a process was devised by which spruce can be seasoned and made ready for use in fourteen days. It is a process of seasoning by saturation, too technical to be detailed here; but it *works*.”

The efficient man can do something of the kind with his memory. Saturate your mind with impressions and associations connected with the sort of facts you wish to remember, and then concentrate your attention; you can make more speedy and more sure the process of getting command of your mental stores.

PART III

THE DISPATCH OF A DAY'S WORK

The leaders in action or thought are not magicians but steady, persistent workers.—THEODORE N. VAIL, President American Telephone and Telegraph Company.

CHAPTER VII

PLANNING THE DAY'S WORK

He who every morning plans the transactions of the day, and follows out that plan holds a thread that will carry him through the labyrinth of the most busy life.—VICTOR HUGO.

The Economy of Well-Planned Activities

The mechanical aids, standardized office, competent subordinates and dependable memory so far discussed, afford a reliable basis for personal system, but they are only the basis. Each of these factors must be skilfully applied to specific tasks before a full mastery over routine is attained.

In large measure, this skilful application to specific tasks depends upon planning. The items which comprise the day's work must be surveyed, analyzed, ranked in relative importance, and attacked in a carefully organized way. Such systematic procedure, while of importance to every business man, is of especial importance to the executive, since in his capacity as business general, superior results or lack of results, as the case may be, are multiplied manifold in the activities of subordinates.

On the Offensive

The plan as an instrument for the attainment of results exalts imagination and foresight, instead of "hindsight" and vain regrets. Precision is impossible without prevision.

"The marksman who had no bull's-eye to aim at," very truly observed President Cottingham of the Sherwin-Williams Company, "never made the top record. I believe in knowing just what I am doing, and where I hope to land."

The plan keeps a man on the offensive; "push the work, don't let it push you," is the ideal it makes realizable. The man who does not plan is crowded by unexpected tasks and is haunted by yesterday's loose ends. He is always on the defensive, while others with more foresight wage wars of aggression.

"I have found it most satisfactory," observed the late President Easton, of the Columbia Graphophone Company, "to so systematize my work that the weak spot is evident long before the leak appears. This leaves me the strength that some men put into the losing fight, to devote instead to the initiative."

Definite Accomplishment

The mental health which comes from planning one's work is not the least of its benefits. Dr. Adolph Meyer, one of the most distinguished alienists of the present day, made the discovery that among the untransmitted causes of insanity none counts more prominently than the big idea; the idea that never can be fully made over into concrete reality for the very reason that it is so big. The far-reaching scheme, the still unsubstantiated venture, the revolutionary theory, the momentous but unperfected invention—all have it in them to take possession of a man; they hold him day and night; he cannot get away.

The road back to healthy-mindedness is to be learned from the man who works at smaller tasks. He attacks these jobs directly and successfully. They are finishable; and as one after another is put out of his way, he enjoys the satisfaction and the sense of freedom which come from a definite accomplishment. The big idea broken into parts becomes similarly get-at-able. Neither its magnitude nor its compelling lure dissipate the confidence as the parts, according to pre-arranged plan, are attacked in turn. Thus planning does more for the

distracted worker than clear away the day's work, it insures for him a healthy mind and a positive attitude toward life which keeps him mentally on the offensive.

A well-considered plan of procedure may appear slow to some readers, who with a fine disdain for system, are accustomed to push directly into the day's work. "Strenuosity," "hustling," the attitude of "pushing things through," are indeed traits which as a people the Americans have long admired. But all traits, however long admired, must be judged by results. Can planless strenuosity meet successfully this test?

Colonel Roosevelt An Orderly Worker

The name of Colonel Roosevelt is synonymous with "strenuosity" in popular thought. But Colonel Roosevelt represented the very incarnation of order and regularity in his work. "Every morning," wrote "K" in the *American Magazine*, during the Colonel's term as president, "Secretary Loeb places a typewritten list of his engagements for the day on his desk, sometimes reduced to five minute intervals. And no railroad engineer runs more sharply upon his schedule than he. His watch comes out of his pocket, he cuts off an interview, or signs a paper, and turns instantly, according to his time-table, to the next engagement. If there is an interval anywhere left over he chinks in the time by reading a paragraph of history from the book that lies always ready at his elbow or by writing two or three sentences in an article on Irish folk-lore, or bear-hunting.

"Thus he never stops running, even while he stokes and fires; the throttle is always open; the engine is always under a full head of steam. I have seen schedules of his engagements which showed that he was constantly occupied from nine o'clock in the morning, when he takes his regular walk in the White House grounds with Mrs. Roosevelt, until mid-

night, with guests at both luncheon and dinner. And when he goes to bed he is able to disabuse his mind instantly of every care and worry and go straight to sleep; and he sleeps with perfect normality and on schedule time."

Such careful planning as this stands the test of results. The man who neglects to plan, but is merely "pushing," tears his way through great heaps of correspondence, sends hurry-up calls, answers the telephone, rushes away to conference in whatever sequence these tasks force themselves upon him. This poor man is, as he puts it, literally "worked to death." For all that, because of his defective system, he gets little done; concentration is lost, perspective is lost, output cannot be secured.

A Survey of the Day's Work

The executive convinced that planning can secure for him an increased capacity next considers how to put such planning into practical operation. Here he faces a problem, whose solution has not yet been worked out with completeness. Factory processes, office furniture, the work of subordinate officials and clerks and the like have become highly standardized, but just what is the executive's routine and just what methods should he employ? Any authoritative answer to these questions depends upon records, analyses, and classifications as yet incomplete.

It is safe to say, however, that everyone finds awaiting him when he reaches his desk in the morning material of four kinds:

1. Unfinished tasks which are on file in the "pending" pocket of the day's work file, or in the folders of the vertical letter file, or in a desk drawer reserved for such material.
2. The morning mail plus telegrams, telephone calls, or other special messages that have arrived.

3. The tickler or its substitute, such as a calendar pad, a diary, or note-book, which contains memoranda.
4. Various regular items whose recurrence is too common a matter for recording specially.

The basis for scientific planning in factory management was obtained from a great many experiments taken with stop-watch, slide-rule, etc. Out of the multitude of individual records, generalizations and averages emerged at last, and reliable, convenient rules for general use were formulated. The man in an executive position can do somewhat the same thing with regard to his own work.

The Elements of Planning

In surveying these various items with the object of weaving them into some systematic arrangement of his time, the executive raises certain questions which are basic in all planning:

1. Object. What is my aim or purpose?
2. Methods. Which of the various methods available best affect this object?
3. Equipment. Under what standardized conditions as to equipment are the above methods most effective?
4. Materials. What working materials do I require?
5. Sequence. In what order shall the various items or operations be attended to or performed?
6. Time. What is the standard time, if any, for completing each step or operation required?
7. Inspection. By what standards will the results be tested?

An intelligent plan based upon the information called for by these seven questions represents a most important step toward the attainment of results.

The Waste of Unplanned Work

The executive who pays little or no heed to the foregoing elements of planning usually will be found wasting time and energy in ways such as these:

1. Needless shifting of employment—stopping and starting.
2. Poor sequence of operations, involving often doing of less important things first and the massing of important tasks together regardless of the rhythm of effort and thus wasting energy.
3. Wrong perspective—proportioning time unwisely.
4. Wrong methods of approach—or wrong strategy in dealing with the various tasks.
5. Packing the working day too full—no free time for emergency tasks.

Careful analysis reveals relationships among different experiences, and enables a man to establish a few controlling accounts for his expenditure and investment of effort and time. By working out a standardized procedure for the regular case he can save time and strength for the exceptions.

The Assistance of Systematic Planning

Standardized procedure cuts off the waste characteristic of unplanned work. More than that, by its deliberate and systematic arrangement of the work, it leads to positive results:

1. It shows the nature, relation, and order of importance, among a series of seemingly individual items. It classifies them into "constants," those which recur regularly in much the same form, and "variables,"

which are not thus regular; and into matters of greater and of less importance.

(a) Constants may be handled in the mass with a minimum of effort and thus more time is left for variables.

(b) Minor matters can be subordinated and priority be given to those of larger importance.

2. By enabling the worker to foresee his various tasks it enables him:

(a) To determine in advance the method he will use for each task or each group of tasks.

(b) To get ready for special efforts, to meet special needs.

3. It gives the worker confidence. He knows that he is not wasting his strength and is in no danger of blocks on the line; therefore he does not worry.

Illustrations of Systematic Planning

The whole matter of planning the day's work is simplified by a study of the programs worked out by executives of known ability. Some of these are given below:

William H. Ingersoll, whose mercantile genius is largely responsible for "the Watch that Made the Dollar Famous," arranges his work according to a most systematic plan, using both a weekly and a daily program. The weekly program is shown in Figure 14.

With this goes a daily program, shown in Figure 15. This form, which is filled out at the beginning of each day, gives a complete outline of the day's work, noting engagements with outside people and any deviation from the set weekly program.

TIME SCHEDULE OF HOME OFFICE MARKETING MANAGER

	Time
9:00-9:30	Mail Dictation
9:30-10:00	
10:00-10:30	
10:30-11:00	PM-R
11:00-11:30	C
11:30-12:00	Secretarial
12:00-12:30	Lunch
12:30-1:00	
1:00-1:30	Executive Conference
1:30-2:00	
2:00-2:30	Control
2:30-3:00	S-T-X
3:00-3:30	
3:30-4:00	
4:00-4:30	
4:30-5:00	
5:00-5:30	

Figure 14. Weekly Schedule of Work
(Used by W. F. Ingalls.)

In the schedule shown in Figure 14 the following letters represent—

- C Staff of Home Office Bureau Chiefs
- S Bureau of Sales Promotion (salesmen and other)
- X Bureau of Experimental and Special Duties
- G General Service Bureau
- DM Bureau of Domestic Branches (Co- and supervision)
- FM Bureau of Foreign Branches
- P Bureau of Publicity and Advertising
- R Bureau of Export (direct markets)
- BM Bureau of Organization Maintenance and Standard Practice
- T Bureau of Scheme and Special Sales

The blank spaces represent time in which the executive works by himself and the following are the duties which he aims to cover in that time:

1. Plans, schemes, producing
2. Study of reports
3. Get ready for conferences (i. e., assemble material, etc.)
4. Reading materials submitted to him and minutes of previous conference meetings
5. Reading clippings and articles of special interest
6. Problems in general management—constant subjects

Some Typical Daily Plans*

I. DAILY PROGRAM OF AUDITOR FOR STREET RAILWAY COMPANY

- 8:30– 9:00 A.M. Read mail and give orders to chief clerk and any others
- 9:00– 9:30 “ Dictate letters
- 9:30–10:00 “ Countersign any checks and approve vouchers and bills
- 10:00–11:30 “ Open to callers (including any clerks) and personal inspection of work of the general office
- 11:30–12:00 “ Business with other officers
- 12:00– 1:30 P.M. Lunch

*These sample schedules were secured by Carroll D. Murphy of *System*, who also presents in the sixth his suggestions as to what duties should appear in the day's work schedule.

THE DISPATCH OF A DAY'S WORK

1:30- 2:00	P.M.	Dictate letters
2:00- 3:00	"	Approve vouchers, bills, and other documents
3:00- 4:30	"	Open to calls (including any clerks) and work on any special matters
4:30- 5:15	"	Sign letters and statements
5:15- 5:30	"	Open

2. A MANUFACTURER'S SCHEDULE

8:30	Reading, sorting, and distributing mail
9:00	Correspondence
10:00	Conferences
11:00	Planning
12:00	Luncheon
1:30	General office, sales, and advertising propositions
3:00	Correspondence
3:30 to 4:30	Invariably held open for consideration of matters not possible to dispose of during the day

3. A SALES MANAGER'S SCHEDULE

8:00	Reading and answering telegrams; study of day's schedule
8:20	Talk to city salesmen
8:30	Confer with heads of departments; study reports and charts previous day's business
9:00	Mail and correspondence
11:30	Luncheon. Usually with some out-of-town customer or at some business club
1:00	Reading afternoon mail. Write out-of-town salesmen and branches
2:00	Appointments with solicitors
4:00	Correspondence
5:00	Signing correspondence
5:30 to 6:00	Usually stroll around office and plant and talk with employees, picking up information as to how things are going.

Date _____	
PROGRAM OF THE DAY	
NOTES	APPOINTMENTS
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"></div> <div style="width: 45%;"></div> </div>	
EVENING:	

Figure 15. Schedule for Daily Work

This is the schedule sheet upon which W. H. Ingernoll makes out his day's work.

4. A BANK CASHIER'S SCHEDULE

6:30	Rise
7:30	Breakfast
8:00	Newspapers
8:30	Brisk walk for thirty minutes
9:00	Look over mail
9:30	Take care of correspondence
10:00	Attend to business as it comes
12:30	Luncheon
1:30	Regular business
3:00	Check the day's work

4:00 Personal letters
 4:30 to 5:00 A casual walk
 6:00 Dinner
 Till 10:30 Current news and other reading. Two evenings of the week along banking lines and two other evenings along advertising lines.

5. DAILY WORKING PLAN OF MANAGER OF MAIL-ORDER SALES

MORNING

9 to 10:30 o'clock

Study sales received in morning mail, and sources thereof. Study the sales total for month so far, and its relation to the monthly sales quota established.

Make definite notes for further research, planning, and sales effort, depending upon tendencies indicated by status of sales to date.

10:30 to 11 o'clock

Correspondence.

11 to 12 o'clock

Conferences and discussions with members of advertising, copy-writing, and sales staff.

12 to 12:30 o'clock

Arrange actual copy-writing and plan work for the afternoon.

12:30 to 1:15 o'clock—Lunch.

AFTERNOON

1:15 to 4:30 o'clock

Actual mail sales planning. Close study of various channels of outlet, and particular copy appeal required on each list for each unit to be sold.

Assigning of copy-writing work to members of staff.

Personal copy-writing by mail-order manager.

4:30 to 5 o'clock

Follow up the regularly scheduled mail-order work going through. Check up with members of staff as to actual mailings and their routing through, according to schedule.

6. DUTIES RECOMMENDED FOR SCHEDULE
BY CARROLL D. MURPHY, IN "SYSTEM"

- (a) Correspondence
- (b) Conferences for:
 - (1) Coaching men
 - (2) Getting facts
 - (3) Giving orders
- (c) Customers
- (d) Interruptions
- (e) "Mixing"
- (f) Studying reports, planning, and individual work—block-
ing out the next move and the proper policy
- (g) Reading and keeping in touch with the trend of busi-
ness

Preparing Your Plan

Though valuable as suggestions, the foregoing plans should not be adopted unchanged, as the plan which works most effectively for a specific executive depends primarily upon an analysis of his particular duties. Such an analysis involves the keeping of a record for a period of several days, possibly weeks, of everything that is done during the working day. It may be well also to include in this record the things which suggest themselves but which somehow are crowded out; they oftentimes represent choice opportunities which have been neglected.

A study of these records will soon reveal certain groupings, which means that the outlines of a day's work plan, are beginning to emerge. Needless to say there will be wide variety in the results obtained by different men. Some executives have merely an ordinary round of activities; with others it may seem at first that the only regular feature of their work is its irregularity. But in any case it will be profitable to raise a few definite questions in regard to the day's work—to run a few "levels" as a surveyor does in laying out a street.

Classifying Your Work

The first and most important question to apply is that of the kind of activity involved in each kind of task which enters your regular day—whether it appears as a constant item or merely comes once in a while. That activity may consist of:

1. Personal study, or formation of opinion. This may be done either:
 - (a) Through thinking things out for oneself.
 - (b) Through examination of data which have been collected for the executive.
2. Inspecting work of others. This may include:
 - (a) Routine O K'ing of pieces of work presented by subordinates.
 - (b) Supervising subordinates, examining equipment, etc.
 - (c) Remedying trouble.
 - (d) Inspection work outside the office.
3. Consultation. This may include:
 - (a) Reporting to superiors.
 - (b) Explaining "the law" to subordinates.
 - (c) General discussion of points of policy or methods.
 - (d) Argument regarding the adoption of a particular plan.

A second question is that of an executive's relation to a given piece of work or to any part of it. His function may be that of:

1. Originating the idea; visualizing it and explaining or "selling" it to his associates.
2. Developing or promoting an idea by someone else; what is required on his part is loyal and sympathetic elaboration of people's plans.

3. Reviewing, checking, testing; what is required of him is to see that specifications have been properly complied with.

Thinking over the various groups of tasks which the record shows enter his working day will enable a person to decide pretty definitely regarding each group:

1. Whether it should be given a regular place in his daily schedule or may be disposed of in one of his "free" periods.
2. Whether it must be taken up according to the convenience of other persons.
3. Whether it requires fresh energy, or may be handled on "exhaust steam."
4. What is required in the way of office conditions and conveniences? Is it seriously affected by noise, by a crowded office, etc.?

The effort to apply the above questions, or similar questions devised for yourself, will reveal to you perhaps things you have not realized regarding the character and relationships of the tasks which make up your regular working day.

Applying the Analysis in a Definite Plan

The next thing, which at first thought may appear much more difficult, is to rearrange the working time so far as possible to fit more perfectly with the tasks to be done. Very likely the reader will say at once: "This is impossible. Definite plans do very well for the president or general manager, but not for the subordinate. My own position involves continual adaptation to the calls of other persons—superiors—subordinates—outsiders. My duty is to be ready for any duty. I could not *hold* to a plan through a single day. I may plan, in a sense, for a month or a week—that is, outline the work

to be covered and in general the order to be followed, but no more!"

To those who know the history of planning as applied to the factory these remarks have a strangely familiar sound. In reply it may be said that even if your time is wholly "at call" you can determine to a considerable extent to which calls you will give priority, both in order of attention and in the amount of time allowed. The difference in effectiveness, in the amount of accomplishment by different executives, turns largely on this. The junior executive may be swept on by the current, but even he can to a large degree lessen or increase the expenditure of time and effort it involves.

Moreover, one can plan how to meet different sorts of calls. The "trouble man" of the telephone company, for instance, cannot plan in advance where he will be needed, but he can prepare definite means for dealing with the various types of emergencies which occur. And after all the "trouble men" in any business which is really well organized are few. Every executive has at his own disposal a much larger proportion of his working day than he is apt to think—*providing he has learned to utilize the odd minutes.*

Study of time is as illuminating and useful as study of physical layout. Nearly every man will find, on making such an analysis as has been suggested above, that he is wasting some of his *free hours*, or *half-hours*, upon duties which could be perfectly well disposed of at odd times. Few of us utilize the ten-minute or five-minute intervals which come to even the busiest "trouble man." Yet there are only 42 ten-minute intervals in the seven hours of the working day. Mr. Vanderlip, so *The American Magazine* for January, 1918, relates, makes much use of two-minute intervals. It is decidedly worth while to *make* an analysis and draw up a plan—even if the plan must be scrapped the first day. The

attempt at a more orderly distribution of his time is an adventure in which a man cannot lose; he is certain to gain in what is most important, namely in clarifying his own mind as to the nature, relationship, and comparative importance of the tasks with which he has to deal. Once having taken such a trial balance of his individual duties and resources he knows better what to do with almost every task which presents itself. Then, when exceptional new items appear, he has the time to spare if they seem to require it.

A Trouble Man's Daily Program

To indicate the reasonableness of the planning which has been described, we may cite here the manner in which the industrial engineer connected with a large manufacturing plant has organized his day.

This man is the trouble man for the entire organization. Any department head who has difficulty in his relations with any other department in regard to securing data, reports, or co-operation, calls upon him to devise schemes for overcoming such trouble. He has assisting him a staff of experts who are given assignments from time to time working up the details of these schemes. Thus this man's time is never his own and he must always be and is available to such demands as are made of him.

He has discovered, however, that his daily schedule can be laid out much more regularly than might be supposed. The time of the various executives of the organization, whose convenience he must meet, is itself arranged in a varying order of routine and extra work. Through careful study of their time-tables he has made one for himself which is surprisingly regular.

Arriving at eight o'clock in the morning, he spends fifteen minutes in setting-up exercises under the directions of an instructor. All the office executives take this practice as a means

of invigorating themselves for the day's work. The next fifteen minutes are spent looking over any mail which has come in the first morning's delivery and dictating answers to letters, etc., which require attention. The majority of calls which are planned in advance are received by phone, and on the whole, the work of the day can be scheduled at this time.

At 8:30 the various superintendents bring in their troubles for a routine conference and adjustment, the industrial engineer acting as the referee. At nine o'clock is held the daily staff conference of his subordinates. Each of these makes daily reports of what he proposes to do in laying out the schemes of adjustment.

10:30 to 11 is set aside for appointments in which the factory executives or department heads are given the preference. The last forty-five minutes of the morning are given to appointments, looking over the correspondence waiting for signature, or incoming mail. Lunch takes the time until 1:15. The next fifteen minutes is spent in looking over any calls which may have come in and scheduling the afternoon's work and preparing for the daily half-hour conference with the general manager, which is from 1:30 to 2 o'clock. At this time, all matters which will have any effect upon the company's policies are discussed with the engineer's superior with an idea of getting final rulings. From 2 to 3 is set aside for conference with subordinates covering their assignments. The rest of the afternoon is open for handling all special matters requiring attention. For instance, the first fifteen minutes are spent in field inspection of the new stores system. Next, the machine layout in the new foundry building is inspected for the output of a new line of goods. Half an hour is taken for discussion of the plans for production of new lines of hardware.

The last hour and a half, or until 5:30, is open for appointments, conferences, other inspections, signing the after-

noon's mail, and handling any other routine matters. When he goes home for the evening he sorts uncompleted work for the attention of his subordinates in the morning, if it can be handled by them, or for delay until a still later period. After that, all this executive's time is taken up for these special calls and requirements. Certain periods are set aside for the calls of the specific kinds of executives such as superintendents, department heads, managers, and so on, and the important engagements come first in the morning so that the detail work on them may be completed during the rest of the day.

If this man's work can be planned, who shall say that his own case is hopeless?

Better Results from Planning

The user of daily plans soon comes to recognize in them the antidote to efficiency's great enemy, aimlessness.

"Our energies may be wasted and our genius misdirected," says John V. Farwell, founder of the John V. Farwell Company, "unless we can guide them to definite ends; unless we can use our forces to get specific results."

The man who plans the day's work does not aimlessly wonder what to do next. He knows, and knows with definiteness, and his efforts are directed incessantly toward specific attainment.

Nevertheless, in common with most things really worth while, plans require a certain discrimination both in their preparation and in their use.

The following plan prepared by a manufacturer shows a curious lack of such discrimination. The factory hours here were from 8 to 12 and 12:45 to 5, and the president's personal schedule was found to read as follows:

8:00- 9:00	Looking over mail
9:00-10:00	Dictation of correspondence

10:00–11:00	Conference with sales manager
11:00–12:00	Conference with foremen
12:00– 1:00	Luncheon
1:00– 2:00	Correspondence
2:00– 3:00	Planning
3:00– 4:00	Conferences and miscellaneous
4:00– 5:00	Plant inspection

This manufacturer had in his employ as sales manager an unusually competent man, but acted as his own works manager. Yet he spent the first two hours of the morning over his mail and correspondence, much of which pertained to the sales department and could profitably have been referred there directly, and a third hour with a man who needed little attention, while affairs in the shops were scheduled to wait for attention until eleven o'clock. Again in the afternoon when he might well have been inspecting the shops or conferring with foremen, he scheduled another hour for correspondence.

His tasks, no doubt, were all worth doing, but he did not put first things first.

"To every thing there is a season and a time to every purpose under the heaven."

How Much Time Is This Task Worth?

In planning, give each task the time it is worth.

If trifles have been eating up one's time the plan will show it. The odds and ends left hanging over when the time limits are reached prove not that a more generous allowance should be made—the tasks are not worth it—but that routine work must be speeded up.

In delegating certain items and compressing others through short-cuts, the executive exercises constantly his sense of relative values. It is here that the ability of men such as Hugh Chalmers shows itself. Mr. Chalmers when he reaches his desk each morning has before him a list of the "Ten Most Important Things To Do Today." This list means that its

maker is a man of discrimination, that he possesses perspective. It may be worth while adding that Mr. Chalmers, the founder of the Chalmers Motor Car Company, once entered the National Cash Register Company in a very minor position, but was advanced by President Patterson until he drew annually a salary of \$72,000.

It is worthy of note here that this habit of concentrating upon the more vital matters is characteristic of most of our successful executives. It largely accounts for the fact that they are successful executives.

It is important to keep a proper prospective, to recognize the essentials.

Why Write Out the Plan?

The plan is the product of hard thinking, and hard thinking should not be done twice. Its first results must be preserved and utilized and this becomes feasible only when they are recorded.

"Five years of planned, attained, and recorded progress," says Harrington Emerson, "will accomplish more than twenty years of rule-of-thumb tucked away under the hats of shifting employees." The record, Mr. Emerson points out, is a ratchet, which holds on to every gain made and allows no slips backward. Time-tables, blue-prints, office manuals, rule books, purchasing specifications, chemical formulae, geodetic maps, legal codes, what are all these but rachets for past thoughts and guides to present effort?

Moreover, the writing down of the plan increases the likelihood that it will be carried out successfully. If his routine plan is always at hand in the form, say, of a printed memo, a man has a regular time-table to which he will keep trying more or less consciously to accommodate the tasks of the individual day. In Chapter IV the day's work file was

described. The arrangement of this file, the headings of the folders, cards, etc., should be those of the routine plan.

How Far Ahead to Plan

While the schedules which have been shown refer in the main to one day's activities only, it is equally certain that written instructions with time limits may cover months and years. The question accordingly is pertinent, How far ahead shall the business man plan his tasks?

It is evident from a study of his schedule shown on page 115, that William H. Ingersoll believes daily, weekly, and monthly planning to be practicable.

It is well to note, however, from a study of this schedule sheet, Mr. Ingersoll's recognition of the fact that the more remote the task the less detailed and rigid may be its written directions and time limits. Today's schedule may be specific in its statement of tasks and allotments of time, but who can now be perfectly definite about a plan for next month, or next year?

"Unhappy the general," declared Napoleon, "who comes on the field of battle with a system."

"When I have tried to plan out ahead, some duty previously unforeseen has upset everything," observed William T. Stead, late editor of the *English Review of Reviews*. "Speaking only for myself and on the strength of my own personal experiences, I should say that I have come to believe that the best way to get the best results out of yourself for the benefit of the world is to frame your schemes as wisely and as carefully as you can with all the information and counsel you can command today, but never to cling to them tomorrow if you should be confronted by some plain, unavoidable duty which speaks to you with the imperious authority of a divine call."

What Mr. Stead rightly insists upon here is sufficient flexibility in plans so that first things may be put first.

Making the Plan Fit Your Needs

When it comes to putting into practice this principle of first things first, much will depend upon the nature of the position held. As a rule, the executive owing to the way he functions within the organization must to a certain extent always hold himself in readiness, perhaps to initiate a policy required by certain changed conditions or to sweep down upon some spot where a tangle has developed.

"I handle things as they come," says W. A. Field of the Illinois Steel Company; "I am simply one cog in a big machine. If I am the cog that should finish a particular piece of work, I finish it at once. If I am expected simply to give it a turn and pass it on to some one else, perhaps higher up, I do that just as promptly."

In positions which involve unexpected and emergency duties in large proportion, the day's plan must be kept flexible. The hard and fast time-table sort, with its numerous and narrow time limits, would be apt to hinder more than help. In order to work best here perhaps the plan ought to be shorn of its time limits entirely and become merely an order of business. (See Figure 16.)

The Matter of Personality

The personality of the man as well as the nature of his duties calls for consideration when the plans are prepared.

Some men are like sturdy machines, able to attack any task at any time, but more of us have our fluctuations in working power—moods, "off days," tired hours, and best parts of the day. Everyone is freshest in the early morning, but some men are slow starters, and do their best work toward the middle of the day. The plan should take such things into

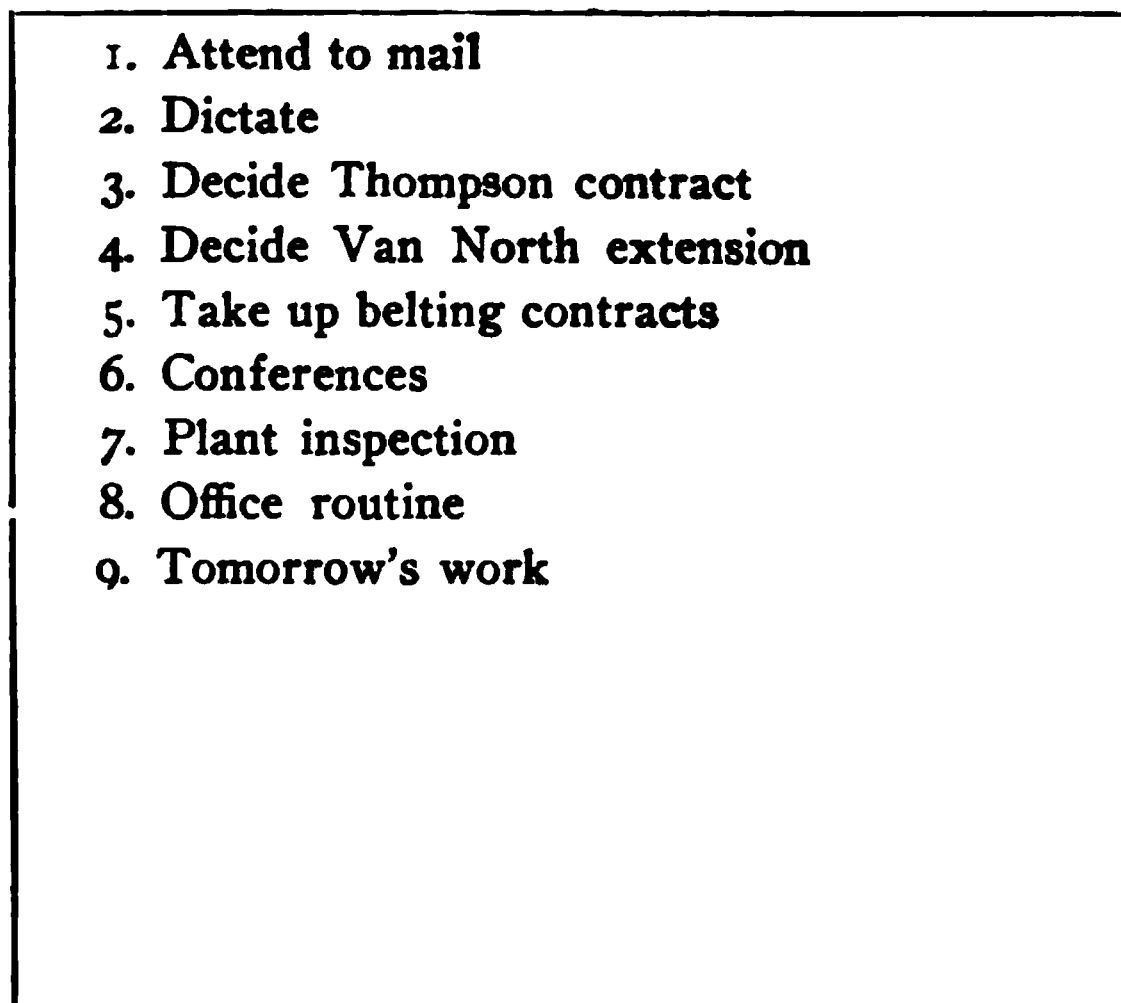
- 
1. Attend to mail
 2. Dictate
 3. Decide Thompson contract
 4. Decide Van North extension
 5. Take up belting contracts
 6. Conferences
 7. Plant inspection
 8. Office routine
 9. Tomorrow's work

Figure 16. A General Manager's Daily Order of Business
A general manager draws up daily what he calls his order of business. This is written on a small card and kept on his desk.

consideration. Those who must work for a time before getting "warmed up" may begin on the morning mail, perhaps, and schedule no important things before ten or immediately after luncheon. The halves of the half-day periods, moreover, affect men differently. Some work better just after eating, others do not. The man who tires quickly should do his creative work in his fresh hours, whenever they may be, and use his fatigue hours for "hack work."

When to Prepare the Plan

With respect to the most feasible time for preparing the day's plan, Carroll D. Murphy submitted a questionnaire to two hundred and fifty business men and found that thirty-eight per cent preferred to prepare it in the morning, usually before opening the mail. Thirty per cent chose to plan their work the night before, so as to have clearly in mind what they must deal with the next day. On the whole, perhaps, the best re-

sults come through getting a general idea of tomorrow's work before quitting the office but leaving all definite plans to be drawn up the next morning.

Wide Applicability of Planning.

The foregoing discussion of the means for securing greater effectiveness from planning should not obscure in any way the simple main principle, that plans are of wide applicability and will secure for a man greatly increased results.

The planner in business

- sets for himself a central purpose;
- analyzes this general purpose into its various ramifications, such as methods, equipment and materials;
- prepares definite plans, with written instructions; and
- devises standard tests with which to check his progress.

Under such systematic treatment, the most troublesome day's work is handled with comparative ease.

EXERCISES

Is Planning Practicable?

You may be one of those men hard to convince that planning is practicable. "Of course," you admit, "it is perhaps all right for theorists, but it will not apply to my case." Let us see.

Not long since you carried out some special project—built a house, managed a picnic, handled a sales convention, ordered some machinery, bought some merchandise, or what not. Use Test Chart 6 for the purpose of investigation in the case of this particular project.

"If only I could do that over again!" is something we hear frequently reiterated; it is the wail of Hindsight. Its real antidote is Foresight.

Note especially those last two columns. Of the various reductions in money and time which you now see might have been made, how much *would* have been made had you taken the trouble to draw up an intelligent plan in advance? Write your estimate in the proper place.

Look at the figures. Is planning practical?

house and car, repeatedly peering about here and there to see that everything is in readiness, only to discover later on that you are without the tire repair kit, the rain curtain, and the carbide?

The next time you make a trip, draw a sheet of note paper from your pocket, jot down a list of the things to do, check this list before you start.

When your wife asks you to make four purchases for her in the city, do you lose dollars in valuable time in walking back and forth from store to store, finally coming home elated with two supposedly satisfactory articles and the other two entirely forgotten?

QUESTIONS	MY PRESENT PRACTICE IS—	MY SUGGESTIONS FOR IMPROVEMENTS ARE—
Do I push my work or does it push me?...		
When is the most fea- sible time for me to plan?		
Do I get the benefits which come from the writing of plans?...		
Are my various tasks taken up in their proper sequence?...		
Is each task allowed the full time, but no more, of its worth?.		
How far ahead should I plan?.....		
Are my daily plans suited to the volume of my business?....		
Are these plans suited to my own person- ality?.....		

Test Chart 7. Planning My Work

It would be much easier and quicker to obtain specific directions to start with, and call upon the stores in order, checking each article as purchased. Carrying the analysis a step farther, it may be that your wife should have planned for all these purchases weeks ago herself.

In short, opportunities for planning are practically identical with things to do; they face you at every turn.

Are you in earnest? Seize this very minute:
What you can do, or dream you can, begin it.

This very excellent sentiment you will put into specific terms by filling out Test Chart 7 now; theory and practice go hand in hand.

CHAPTER VIII

DOING THE DAY'S WORK

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Every one of us is conscious of a satisfaction in doing his work handily and well, in seeing the product grow under his own hands.—FRANK W. TAUSSIG, Harvard University.

Putting the Plan Through

A genius for dispatching work, for getting through it in the shortest time possible, is essential in any great executive. It does not suffice that he plan; he must also carry out his plans. The plan stands behind the power of dispatch as its indispensable foundation, but from the pyramid builders of Egypt to the corporation officials of today, the doers of the world's work are measured by the amount accomplished; results constitute their real test.

The executive, his plans matured, must put them through. Concentration, decision, dispatch! These are the watch-words of modern business.

Marvelous System of Dispatching

The highest order of dispatching has been attained by the railroads, whose methods are thus described by Harrington Emerson:

In railroad operation marvelous dispatching has been attained, more accurate than the seasons, more reliable than the tides, almost equal to the star time on which it is based. Lines of track nearly a thousand miles long stretch between New York and Chicago. Every switch, every grade, every curve, is known; the line is studded with signal towers and punctuated with stations.

In the round house is a locomotive with a boiler capable of

carrying 225-pounds steam pressure, which through the cylinders and pistons pushes on the wheels with rims polished like glass. The rims transmit 400 horse power through a quarter-inch square of contact with a glass-smooth rail. With one load of coal, drinking from tanks as it runs, the locomotive is able to speed 140 miles at the rate of 60 miles an hour. The seventy-two to eighty-four wheel axles under the train must each run true in its box, everything in track and equipment, in men, and above all in spirit, must be in perfect order all the time.

On the basis of these conditions a schedule is made out, a schedule of running time, with due allowance for grades and curves and stations, an 18-hour schedule from New York to Chicago. The train is then dispatched.

The dispatchers issue orders to the conductor and to the block-signal men, thus controlling the train from both ends. While under the orders of the conductor, while physically under the control of the engineer, it is the dispatcher who from start to finish holds it in the hollow of his hand.

The task here is one of accomplishment, carrying out the official plan, getting the train through on schedule whatever happens, every day in the year. It is not enough that schedule and arrangements have been made out with minutest care; the dispatchers must see that the thousands of pieces of their huge machine function exactly every day—cars, engines, and track, and men.

Human Traits of the Long Ago

Nevertheless, the dispatching efficiency even of railroads, according to Mr. Emerson's estimate, is not over forty per cent and most organizations in this respect fall far short of the railroads. The prompt and accurate co-operation which an organization seeks from the members of its staff is not always forthcoming. The average executive fails oftener than he likes to think of to get his own daily program through on schedule time—especially if he makes the needed stops for "passengers." Why is this?

A traveler in Australia once engaged three natives to

serve as guides into the interior, the time set for departure being early the following morning. Not a native appeared at the appointed time, nor during the entire day. The traveler, unable to account for this, began to suspect foul play, especially when the second day wore along to noon with no sight of a native. About three o'clock, however, the Bushmen appeared, friendly as ever and ready to begin the journey. The amusing fact was that they failed entirely to comprehend the traveler's displeasure at their previous non-appearance. "Why," they said, "this is only the second day!"

Inefficiency Still With Us

Irresponsible ways, neglect of the necessary steps in carrying through the things we mean to do, are deep rooted in us all. In the long ages during which the ground patterns of human interests were fixed our ancestors led the simple life with responsibilities scarcely more exacting than the animals they hunted. Today a man is chosen and retained in an executive position largely because his associates—above, around, and below—have confidence in his power of *carrying* responsibilities, of getting his train through. But he himself knows only too well how exacting is this test.

Opponents the Systematic Worker Must Overcome

When the business man seats himself at the desk with today's plan facing him and the hour has come for concentration, decision, and dispatch, his progress is persistently threatened by hindrances—the seven devils of obstruction we might call them:

Procrastination
The big dreamy idea
Things forgotten
Yesterday's loose ends

Dilatory co-operation

Interruptions by associates and callers

Round about methods

Beset by these insidious foes, the expectations of the morning dwindle gradually as the day wears on until the realization becomes painfully clear that he is again falling far short of his maximum. How best clear the way of these seven devils of obstruction so that a man may dispatch his tasks with zest?

The Procrastinator

"Getting things done," says George Matthew Adam, "is a matter of first getting things started."

The procrastinator—and there are traces of him in nearly every one of us—is loath to start. He surveys his problem, touches it timidly here and there, then leaning back in his office chair gazes absently out of the window and soon is lost in antibusiness reveries. Upon returning from these mind wanderings, he continually salves his conscience with such enervating excuses as: "I don't feel very good this morning," "I'm not paid to do this," or "I couldn't more than get started until someone would interrupt me anyway."

After a time the procrastinator may get started, but in a half-hearted way. With everything going smoothly, he may dispatch a fair day's work, but the first hard decision, the first tangle, is his mental Waterloo. With neither definite goal nor strong motive force, he spends the hours in *partially* solving many problems, at the end postponing their full accomplishment till tomorrow. Tomorrow he repeats the dilatory tactics of today.

The man in an executive position who procrastinates habitually will not advance far, nor in companies of any size and progressiveness will he last long. If a subordinate he

will be dropped; if himself in charge, the business will go to pieces under him. But trouble comes with the occasional procrastinator, the man who has an off-day now and then. Neither he nor anyone else can figure his time loss.

The difficulty here results from failure to use will-power. It requires motive force, resolution, decision of character, to begin a task promptly and push it right through to completion. Such power of will can be developed for every one of us, and it can be supported also by right habits of work, as will be seen in later chapters.

The Big Dreamy Idea

The big dreamy idea is perhaps the most productive of all the obstructors. It holds the attention rapt with its vision of things to be, at the same time deftly substituting wishbone for backbone. Its victims we meet in the market place.

We all know the day-dreamer in the market place. Inventors exhibit momentous discoveries, contrivances which will extract gold from sea water or produce gasoline at one cent a gallon or prevent forever railroad wrecks. Experts glowingly unfold schemes for binding capital and labor together as one, or of speculating on the "sure thing" basis, or of living in some Eden bower without toil and without price. Yet the possessors of such gorgeous plans are themselves commonly of seedy appearance, wearers of threadbare coats, patronizers of the lunch counter, and not averse to borrowing a "five."

It may seem a far cry from such seedy persons to any man actually managing his own business, or in a responsible position with any large concern. But the distance is often less than we think.

Especially in a great organization where motion has to be passed along through many steps, where it takes *time* to get a thing done—even to get it rightly planned—the bureau heads, that is, the executives concerned, often fail to "get down to

brass tacks." When a large part of a project must be carried through by others to whom a certain leeway must be left, it is harder for the executive to visualize the task than when he has to carry it through with his own hands. For example, a member of Congress will make an inquiry of a government department which involves weeks of work by the clerks. In a big organization with big resources and elaborate methods, almost always a certain large, extravagant, indefinite way of looking at facts is bred in certain of the executive officials.

The vision which flits into the mind may be priceless; yet its pricelessness is due to its realization, not to its conception. Every idea, or scheme, however far-reaching, must precipitate itself in some definite tangible action. Otherwise it has no place in the day's schedule. The business train is not to be stopped in order that the executives may gaze dreamily at the scenery.

An Always Available Stock of Raw Materials

He who would concentrate, decide, and dispatch must have the raw materials with which to work. Things forgotten indicate that certain raw materials are lacking, and like an engine minus connecting rod the mental processes are halted.

As an example of poor dispatching the forgetful man takes high rank. He wastes time and effort in wondering what to do next, still more time in trying to recall the raw materials necessary, and to the end he fears to decide because the evidence flitting elusively here and there within the mind renders decision uncertain and unsafe. What would happen to an express train run according to such methods? What would happen to an ocean liner whose sole guidance was a captain thus tossed about by a treacherous memory?

Neither railroad company nor steamship line accept such risks, nor should the man at the desk.

The suggestions given in previous chapters, while they cannot be called infallible, do nevertheless enable the executive to keep always at hand in files and memory, stores of raw materials, and thus overcome in great measure the obstruction of things forgotten.

Yesterday Is Dead; Be Done With It

Yesterday's loose ends, if left over for today, are time-consumers. They drag on; they clutter up the desk; they confuse the mind; they multiply until clear-cut thinking is aborted and the energy which might have brought about definite accomplishment expends itself in half-hearted attempts.

The only way to deal with yesterday's loose ends is to do things to a finish, today.

Some practical aids for carrying out this policy of doing things to a finish have already been discussed. The flat-top desk encourages a definite, clean-cut dispatch of the tasks one has to do. The day's work file removes from view masses of miscellaneous, confused material—sorts them, too, and holds them in readiness. The hold-over file and the tickler remove the uncertainty and vagueness from even uncompleted work; they show specifically what comes next. The plan, with its time limits, still further focuses effort upon certain definite accomplishments.

The Waste-Basket as an Ally

A further effective aid in having done with things now is the waste-basket. Its yawning cavern may call forth execrations from advertisers and letter writers in quest of orders, but it stands for wholesome thinking. The man who, on the vague supposition that "some day I might want to do something with these things," hides away papers here and there until his desk is a junk heap, gets choked up mentally. His practice encourages the habit of indecision. If, instead, each

paper or item as it appears at the desk is judged according to its actual value, the mind as well as the desk receives a good house cleaning. Use the waste-basket more!

With these mechanical aids as allies, attack the work at the desk. Proceed calmly, systematically, forcefully. Carry every piece of business through to a definite conclusion.

Dilatory Co-operation

The business man works not as an individual merely, but as a cog in his industrial machine. His personal efforts are dependent upon what others do, and these others are often dilatory co-operators. Practically everyone, especially after he has undergone a series of committee meetings or conferences, appreciates the jest that "co-operation is the thief of time!"

The chief remedy for dilatory co-operation is care in planning.

The average business man escapes if he can the task of systematically planning a job, and passes his ill-assorted directions along to others, who as a rule are similarly delinquent. Thereby he initiates a series of difficulties, which in spite of heroic efforts here and there, are almost certain to delay the final results. Consider the printer as a typical victim. What tales he can unfold of rush orders, of missing parts of the copy, of last-minute changes, of telegrams to the engraver, and messenger boys to the foundry, of threats and pleadings for what would have been delivered days since had it only been planned properly!

Getting things done through co-operation necessarily requires time. But this time can be materially shortened if the initiator of the task plans for its accomplishment all the way through, takes into account the individuality and special conditions of the other persons concerned, assigns its various parts in due season, makes tickler records of the dates

when results are due, and notifies promptly any delinquent. If system is worth while to the individual in general, it even more truly serves the man who works with others.

Interruptions—By House Men

The executive, industrious though he may be in pushing his own tasks, may see his program hopelessly delayed unless he can defend his time from unwarranted interruptions.

Some of the interruptions come from within the organization, from his associates, subordinates, and superiors. It is pretty well recognized in the factory that continuous operation is necessary for maximum output, hence shut-downs are guarded against. It is by no means, however, so generally recognized in the executive office that steady work means larger mental output and that interruption here is quite as serious as shut-downs in the machine shop. As a result, house men are constant offenders.

Much of this promiscuous visiting will be avoided if each official follows the plan outlined in Chapter IV, of assigning pockets in the day's work file to his various co-workers and, by placing in these pockets all items having to do with a certain co-operator, makes one conference with him take the place of many.

A General Office Schedule

This plan if carried a step further involves the drawing up of a general office schedule, with which the various individual schedules are correlated. An example is here given of such a schedule as it has been worked out in a New York office and, it may be added, used with salutary effect. (See Figure 17.)

The same idea has been applied with even greater elaborateness and entire success by a large manufacturing company. (See Figure 18.)

OFFICE SCHEDULE

In order to reduce the number of interruptions to a minimum, all members are requested to adhere as strictly as possible to the following schedule:

8:45-9:30 Preparation

Reading mail, memos, interphone calls, interviews without appointment, and other preparatory steps required.

9:30-12:30 Business

All work requiring concentration. Interviews during this time only by appointment. No interphone calls or memos unless absolutely necessary.

12:30-2:15 Preparation

Luncheon and informal conferences, memos, interphone calls, interviews without appointment.

2:15-4:00 Business

Same as from 9:30-12:30. Concentrate upon your own work and permit others to do the same by reducing interruptions to a minimum.

4:00-5:00 Miscellaneous

Sign mail, interview without appointment, informal conferences, planning work for tomorrow, and the like.

Outside callers, in so far as this is practicable, should be handled according to the above schedule.

No member is expected to break these rules without valid excuse, which is to be given at time of interruption to the person disturbed.

Figure 17. Office Schedule

In order to secure more effective co-operation among the members of its office force, a New York concern devised this office schedule.

In adopting such a schedule, particularly in deciding upon the classes of work and their respective hours, full consideration must be given to the office involved. In general, minute subdivision and close scheduling should be avoided.

While it doubtless may be that a schedule common to all its desk-workers cannot be introduced with profit into every office, the idea behind the schedule is neither its classifications nor time limits nor printed form, but an attempt to attain more orderly procedure. This idea, once it is grasped, may possibly be sufficient in itself to reduce house interruptions to a permissible quantity. Co-workers taught that concentration is the ideal and interruption a sin to be avoided, will become apologetic and brief when they do interrupt.

The Problem of Handling Callers

The interruptions of members of the force are commonly less troublesome to the executive than his outside callers. No business man can absolutely refuse to receive callers; still, their visits have only a certain value to him and the problem is how to secure this value within the proper time limits. The problem is as serious for the man in charge of a department as for the president of the company, more serious indeed, in a great many cases, because he has fewer defenses.

The policy of keeping the door always open and then getting rid of unwelcome callers by sheer brusqueness may have served very well heretofore, but has been discarded today. Under the growth of organized enterprise, the time of the executive, whether president or bureau head, has become too valuable for promiscuous visitors; at the same time the increased appreciation of the value of business courtesy prohibits the use of brusqueness or incivility as a defense.

Callers must be admitted with discrimination and their stay terminated with courtesy.

INTERDEPARTMENTAL SCHEDULE

IMPROVEMENTS: 1
 PERSONAL MEETINGS
 COMMITTEE MEETINGS
 Product ... Wed. 2.30-4.00 P. M.
 Production ... Thurs. 2.30-4.00 P. M.
 WORK-GUN-DEPT., TEST DEPT. and EXECUTIVE
 THE ABOVE SCHEDULE DOES NOT APPLY TO SATURDAYS
 007222 400 19-17

Figure 18. Interdepartmental Schedule

Symbols used in the Schedule but not included in the above Index, are the initials of individuals interviewed.

The Selection of Callers

In the selection of callers, sometimes it is a diplomatic young man bearing some impressive title such as "Assistant to the President," or "Executive Assistant," who learns the nature of the visitor's errand and proceeds to make the necessary adjustments. Sometimes the private secretary or the switchboard operator performs these same functions. Sometimes the office boy meets the caller with a card and the polite request that he will write his name and a message. The card is then duly passed upon behind the scenes.

The executive by some such methods as these closes the door against unimportant callers. Yet there are shrewd pickers of locks on the outside.

The Growing Aggressiveness of Callers

In books on salesmanship these lock-pickers have their courage whetted by such statements as, "There are a few men—a very few—who are mighty hard to see. A salesman must try everlastingly to find a way to get in instead of sitting back and proving to himself that it is impossible. When he has finally decided that it cannot be done, he will be obliged to watch some fellow in the same line come along, get in, and make the sale. It should be remembered, always, that there are some men who are getting in; there are some men from whom the prospect is buying. Be one of them."

In sales magazines and at every gathering of salesmen, stories on "How I got by those secretaries," are related with pride.

"A clerk at the information desk," so runs one of these stories, "asked me, 'Whom do you wish to see?'"

"I don't wish anything—I came to see Mr. Jennings," I replied. "Tell him I have arrived—the name is McClure."

"The girl, impelled by the assurance I put into my com-

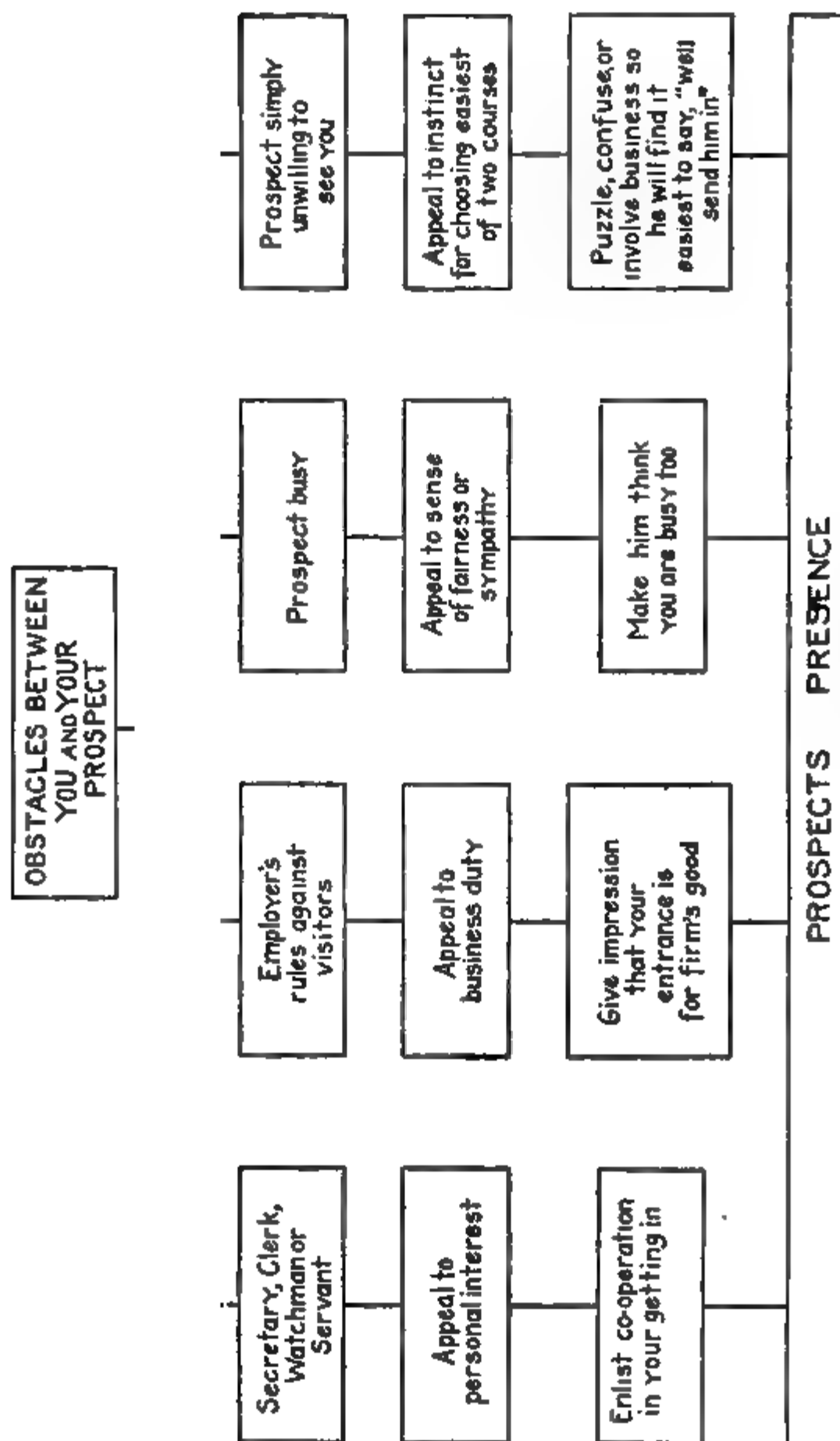


Figure 19. "Ammunition" for Breaking Through the Executive's Defense

If he is not to capitulate, the executive must perfect his defensive system. (Reproduced from "Knacks of Selling," by permission of A. W. Shaw Company, Publishers.)

mand, hesitated, then telephoned to Mr. Jennings that 'Mr. McClure had arrived.' Mr. Jennings came out."

The particular "obstacles between you and your prospect" are analyzed by alert sales managers, remedies appropriate for each are devised, and the whole scheme charted for the edification of their men. (See Figure 19.)

The view current today that all men are salesmen, engaged in the marketing either of commodities or their own services, in itself exalts aggressiveness and shrewdness in reaching the person with whom an interview is sought.

How Shall the Executive Protect His Time?

What does all this mean to the man in the office, who has his tasks to get through on schedule time? Simply that the forces of attack are growing stronger; to protect himself, he must necessarily strengthen his forces of defense.

Judge Gary, Chairman of the Board of Directors of the United States Steel Corporation, meets callers by appointment, a plan which he adheres to rather strictly. It is said that an executive from a prominent Chicago manufacturing house, armed with a letter of introduction from the President of the American Bridge Company, one day walked unannounced into Judge Gary's anteroom. He had made a special trip to New York to see the Chairman. After a three days' wait he returned to Chicago with his errand unfulfilled. A few weeks later he returned, this time by appointment, interviewed Judge Gary without delay, and closed an important deal.

"Judge Gary's time is sometimes filled for a few weeks ahead," explained his private secretary. "However important the unexpected visitor, the Chairman cannot always drop his work or break engagements to see him. Unless the visitor can transact his business with other officers of the company,

he must make his appointment through me and wait until Judge Gary can see him."

The president of a Chicago wholesale house, working upon the principle that it is easier to keep callers out than to get them to go on time, admits no caller directly to his private office. Instead the president leaves his office, usually with some papers in his hand, and greets the caller who remains outside the "dead line" railing. Should a short private discussion appear desirable, the president invites the caller inside the railing with some such remark as: "Come inside a minute or two." This time limit acts as a warning suggestion, which is reinforced by the handful of papers and, if necessary, by the president's statement that he must get back to his desk. "Once he lands in a chair, it's practically impossible to get a man out without dynamiting him until he has told the whole story," says this executive in explaining his procedure.

Shortening the Caller's Stay

Trouble may also be forestalled by granting the caller a definite amount of time in advance. "I have a meeting this morning at ten," a traction executive told his visitor, "which gives me fifteen minutes now. I will be back at half-past one and will then have a half-hour before two o'clock, when I have another engagement. If fifteen minutes will do, I wish you would come in now; if it will take longer, suppose you come around this afternoon."

Such a simple and straightforward statement gives no offense, but it usually does condense into a few minutes what otherwise might be a prolonged interview.

Once the caller has been admitted, the time should be spent profitably. The caller, it is presumed by the fact of his admittance, has a mission which the executive considers worth his while and upon this mission accordingly both men should focus their attention; irrelevancies are time wasters to be

avoided. "If you want to get the most from the other fellow," says a newspaper executive, "never talk about yourself nor permit him to talk about you."

In practice this policy may require a certain amount of planning for each interview; otherwise time is liable to be consumed on non-essentials while some main point possibly will be overlooked entirely.

"I keep at hand," says a real estate executive, "a list of things to be taken up personally with different people who come into the office. When an habitual caller is announced, it takes but the time that he is walking from the outside office to my door to glance at his record card and prime myself for the interview. When he comes in I know exactly what I want to talk over with him and I shape the interview accordingly.

"I never let a man saunter in and talk at random by way of preamble. I get my business through with him first, close it off, and have that much done, then I ask him what he wants of me and am able to get through with the rest of his call in record time."

Closing the Interview

The interview, even though kept in fruitful channels, after a time reaches the point when its prolongation would mean waste. How terminate it?

Various expedients will be mentioned. As to their use it may be said in general: (1) choose whichever expedient seems best suited to your own personality and that of your caller; and (2) commence with delicate hints and gradually work toward the more extreme measures, meanwhile balancing against the risks involved by the caller's possible resentment, your own certain loss in personal efficiency.

A hint which suffices for some callers is a remark such as "I'm glad to have had this opportunity to talk with you,"

or "It's a pleasure to have met you. Come in again some time."

Rising as a sign the interview is terminated, looking at the clock, or drawing out upon the desk in plain sight a formidable pile of work, are somewhat stronger hints that it is time to go.

According to a certain charming method which, however, requires a high degree of diplomacy on the part of its user, the host rises, reaches out to shake hands, and then while cordially retaining the caller's handclasp gently leads him to the door with a few final words on the subject of the call and a pleasant farewell. The visitor finds himself outside though scarcely conscious of how he got there, and the door is closed.

Since they recognize that any caller once comfortably seated in a quiet private office is liable to overstay, some executives contrive to give a visitor as he enters the subconscious feeling that he is just about to depart. It may be that no chairs are provided. The executive sits, the visitor stands, unless he is one to whom this would be a distinct discourtesy, in which case both men stand. Or again, the office door is left wide open and the caller is seated where he cannot avoid seeing that others are waiting outside. Should this not have the desired effect, the secretary is signaled to usher in one of those waiting and the newcomer, on being shown a seat, is informed he will receive attention in a minute or two.

The Distress Signal

Another general means for terminating the interview may be called distress signals, to which executives in especially exposed positions sometimes have recourse. The most common of these is the electric buzzer, concealed somewhere on the desk or floor where it may be pressed unobtrusively. As soon as the emergency signal has sounded outside, an assistant or secretary appears who apologizes for the interruption,

but is obliged to bring up such and such a matter for immediate action, and he stands waiting as the caller makes his exit. Sometimes the assistant on receiving the signal calls up on the phone, representing himself as a house man desiring to settle an important matter and forcing from the executive a promise to confer with him inside of five minutes; the visitor, overhearing the conversation, takes hurried leave.

The story is told of a prominent exporter who, wishing to terminate an interview, in the most charmingly informal manner lights a cigar, strolls over to a window, spreads his legs apart, and with hands folded behind his back seemingly prepares to continue the conversation at his ease. But to the secretary sitting just outside the glass door, this naive attitude of his employer constitutes a distress signal. He sweeps in with a huge handful of "important papers which must be attended to at once in order to catch a foreign mail." The caller thereupon is ushered out with expressions of regret.

Who Else Is Waiting?

In deciding whether or not to close the interview, the executive discovers oftentimes that much depends upon what callers, if any, are waiting outside to see him. In some cases the secretary is left in control of this matter, it being his function to signal the employer by buzzer when an important caller has arrived. The chief may or may not communicate with him further before taking leave of his present caller, much depending upon the secretary's proficiency.

For handling cases such as these the telautograph is useful. Should a caller be staying rather long, the executive by taking up his electric pencil inquires as to who is waiting outside. The secretary, by using a similar pencil, replies that Mr. Blank is there; upon the receipt of the information the executive can arrange his time accordingly.

After all is said, however, the reception of callers is one

of the important duties of practically every man who has executive work. His purpose is to accomplish as much as possible during the time which his program permits.

President Roosevelt and His Callers

The classic example of successful management of callers is the account by George Fitch, in *The American Magazine*, of President Roosevelt in the White House. The writer of the account had called upon the President accompanied by his Congressman.

As we finished our inspection, which included a view of the President's desk in his private office, the President came out and began working his way rapidly through the callers, taking one group at a time, and using both hands and voice incessantly. . . . As he worked each group he sorted out the visitors and classified them. Some he merely greeted cordially. Others he asked to stand aside a minute for further remarks. Still others were asked to step into his office and wait for him. Then, after having rough-finished half a dozen groups, the president would go back and work over the debris.

It was then that we saw him in real action. He told a story and arrived at the point with a deep, chuckly laugh which pervaded his entire system and was reflected from every tooth—a regular mouthful of glee. He frowned tremendously and a pent-up epigram exploded with a loud bang; he suddenly reached forward and bit the atmosphere in two while emphasizing a word. He reached a woman caller and his entire personality dissolved and changed like a river mist. Bowing low as he shook hands, he greeted her with an old-fashioned courtesy and a soft-voiced deference to woman-kind that was most attractive. Passing on, he heard a proposition and dismissed it with two “noes” that would have cut a ship's cable in two—all in good humor and friendliness. Then, remembering a group which he had sent into his office to be digested, he hurried in to them and considered their case. . . .

The Congressman in seeking a better opportunity for his visitor to talk with the President blurted out, “Mr. President, I am on the sub-committee on fortifications.” Mr.

Roosevelt immediately drew the little group into a corner, where he at once plunged into affairs of state. He took the lid right off of the international pot and let us look in. . . . As I remember it now, we had really looked on open-mouthed for fifteen minutes—a fear comes over me that it was really only two—and that at the end of that time the President, having said what was uppermost in his mind, had terminated the interview. That is the funny thing about it. We came away feeling as if we had terminated the interview. They say everybody does—that no one stays a minute longer than the President wants him to and yet no one knows how the President does it. At a certain moment the visitor clutches his hat convulsively and the President, overcoming his disappointment, manfully bids him goodbye.

But what makes the visitor clutch his hat? The explanation is simple. Roosevelt himself dominated the interview.

Dominating the Interview

The spineless caller who hangs on rather than make the effort required to break away, must have his mind made up for him. The persistent stayer who remains to urge again and again a project against which his host has already decided, must have his views definitely reshaped. Positiveness of manner accomplishes this. If the executive impresses his callers as a man of infinite leisure, most of them will stay too long. If he does not get quickly to the point, many of them, if they do business, will have to stay too long. The best method of saving time in an interview is for the executive himself to serve as an example of what both men should do, viz., concentrate, decide, dispatch.

EXERCISES

Wasting Time

Several salesmen met in Boston some time since for a little get-together. One of them, the manager of a New England territory,

took the floor. His remarks are thus reported by an unofficial secretary:

"He first pointed out that life consists of fads. He had one at the moment and it consisted of a constant analysis of the way he occupies his time.

"He approached his topic by showing us how he had analyzed his expenditures over a period of two years; and the revelations that this analysis had exposed. For about two months he had carefully analyzed his time in much the same way and the revelations were indeed startling.

"Time, he pointed out, is our most valuable asset. Not alone in dollars and cents but in that far more valuable commodity—mental growth.

"He had divided his time into two parts—productive and unproductive. And these again he subdivided into logical divisions.

"He quoted from memory and here is the result—

1. Productive

- (a) Constructive business-getting time
- (b) Avocation—(not mere diversion)
- (c) Reading
 - (1) Solid
 - (2) Light
- (d) Exercise
- etc., etc.

2. Unproductive

- (a) Meals
- (b) Bed
- (c) Chores
- (d) Diversion
- (e) Idleness
- etc., etc.

"As a result he had discovered several important facts:

"1. That he had been deceiving himself about the amount of work, business-getting work, that he had been doing.

"2. That four hours each day were absolutely unaccounted for—wasted in pure idleness.

"3. That the daily round showed lack of steadiness.

"As a matter of fact the real worth and object of such an analysis is to cultivate steadiness; the steadiness of the six-cylinder which keeps on chug-chugging all the time and not in spurts.

"Bert had discovered that his days were irregular in the extreme. One day so much work done; next day not nearly so much; one day so much time given to meals; next day far too much.

"His analysis showed him the necessity of proper allocation of time for work, meals, sleep, exercise, etc., each day."

This salesman-manager has an income running well into five figures, so he cannot very well be accused of being a mere theorist. He emphasized an idea well worth while; time is a most valuable asset and everyone should make an analysis to see how his is being spent.

For two or three days keep accurate record in minutes of all time spent from 9 A.M. to 5 P.M., or whatever your regular hours are. Do not postpone this recording until the close of the day, but jot down the minutes as you go along, five for mind wandering, ten for worrying, etc. Be honest with yourself in this, too; the question is not at all whether you like the showing made but solely what are the facts? The time spent on some of these things is not entirely wasted, as, for instance, during a ten-minute gossip something may be said which in the way it fits into the day's work may be worth two minutes; this two minutes accordingly would be placed in a second column as a credit.

Your percentage of efficiency, however low it may be, undoubtedly shows higher in this computation than your working methods actually justify. The reason is that even with the most careful recording a great many minutes will not be accounted for, probably wasted, whereas in the above records all time not accounted for is credited as being properly spent.

Are you satisfied with this percentage of efficiency? Or do you find, as did this sales manager, that you have been deceiving yourself about the amount of time devoted to productive work?

Your Own Record

Do I or do I not dispatch my work on schedule time?

Within the big organization where your working days are spent, you already have a reputation for promptness in meeting your obligations or you are known as a person whose laxness in dispatching continually delays the business game. Because so many men are addicted to this latter practice and yet wish to escape the consequences, poor dispatching naturally associates itself with countless attempts to "pass the buck."

We shall employ Test Chart 8 as a check upon ourselves. The twelve pieces of work selected ought not to be trivial matters but tasks for which a fair amount of preparation is required. The first two causes of delay specified in the form have been discussed in the present chapter; the five factors in planning are object, methods, equipment, materials, and schedules; and the seven devils are procrastination, the day-dream, things forgotten, yesterday's loose ends,

dilatory co-operation, interruptions by associates, and round-about methods. A delay may be due, of course, to more than one cause. Use check marks for the replies when this is possible.

When Test Chart 8 has been completed, survey the result. Frankly, what is your opinion of yourself as a dispatcher?

TWELVE PIECES OF WORK RE- CENTLY COM- PLETED	CONDITION OF DISPATCH			CAUSE OF DELAY		
	COM- PLETED ON TIME	NUMBER DELAYED	TIME DELAYED	FAULTY PLAN- NING	SEVEN DEVILS	OTHER CAUSES

Test Chart 8. My Record as a Dispatcher

Improvement

Some improvement doubtless is in order. Follow the specific plans you have outlined for yourself according to Chapter V, and during the next month, two months, or whatever definite time you set for yourself, seek in every possible task to eliminate wastes in time. Use your specific plans in cutting directly to the goal, make every moment and every motion result getting.

At the end of the period set, once more use Test Chart 8 to enter your record of accomplishment for two days or so. How goes your improvement?

CHAPTER IX

SHORT-CUTS

A straight line is the shortest distance between two points.
-Euclid.

Amateur Versus Expert

The man intent upon dispatching his day's work upon schedule time, but apparently unable to do so will discover possibly that like a Bostonian upon the winding streets of his city, he has been proceeding most *indirectly* to the goal. The solution here is a short-cut.

The insistence upon short-cuts is not a foible of the scientific manager, but is based upon the very nature of things. Tyrus Cobb at the plate is much less given to motions than is the usual amateur batsman, but he has his eye on the ball and he "connects" with it. Tris Speaker in the outfield chases back and forth considerably less than the bush leaguer, but when he does move it is in the right direction. Rose Fritz, the world's champion typist, in her speed contests is apt to deceive the onlooker, for even as a record is being broken her fingers glide easily over the keys.

The amateur, in general, attains his end by roundabout methods; the expert uses short-cuts.

A Lesson from Animal Psychology

The psychology upon which the principle of short-cuts is based is illustrated in a very interesting way by a series of experiments Professor Thorndike performed with a cat. The animal was placed inside a closed box, which was constructed of slats and could be opened by means of a wire loop which hung from the ceiling.

When first put into the box the cat commenced to struggle vigorously, tried to squeeze between the slats, clawed and bit at the bars, and even thrust its paws through the openings and clawed at whatever it could reach outside. In the course of its clawing and biting, it by and by attacked the suspended loop, whereupon the door opened and it was free. In succeeding attempts, improvement was shown; the animal which in its first attempt to escape consumed 160 seconds, in its twelfth attempt consumed only 20, and in its twenty-fourth consumed but 7. The various non-successful motions were eliminated; the necessary motions were used at once.

Short-Cuts Represent Perfected Methods

What we have here, if the time periods required are plotted graphically, is a curve of learning. First attempts are found to be crude, wasteful, time consuming; succeeding attempts bring about continuous improvement until the minimum of time and effort is expended, which means that normally crude and wasteful methods are replaced by short-cuts. The principle involved is true even for the executive in his private office.

The man who would be expert, no matter what his position, must adopt short-cuts.

The following short-cuts are illustrative of a line of thought which may profitably be carried much further.

Conservation of Time

The buyer for a machinery jobbing house, who meets many callers, fitted out his office with two work places. "If I am talking to one man when another arrives," he explained, "I ask the second to go to the vacant desk and prepare whatever he may have to show.

"If the salesman I am talking with is inclined to overstay his welcome, I explain that I feel I should not keep the other

man waiting. In this way I can excuse myself gracefully, leaving the first caller to put away his samples or photographs while I go to the other.

"Similarly, when I am through with the next man, I return to the desk, while the second caller puts his paraphernalia away. You may not imagine that this saves me much time in the course of a day, but it does."

Fill in the vacant periods: hoard the minutes.

A trade paper, a book, some reports, routine correspondence, an unexpected caller, a short period of calisthenics, these are some of the many items which may be sandwiched into the vacant period. Keep 9:00 A.M. to 5:00 P.M. sacred for work, its minutes packed with accomplishment.

Business Time for Business

Keep free from personal visitors and personal matters during the business day. The firm in paying your salary has first claim to your time and energies.

Some Things Not To Do

Do not sharpen pencils, fill fountain pens, nor run errands. Your time is high-priced, and the firm loses whenever a high-salaried man performs low-priced tasks.

Supervising from the Office

Office partitions of clear glass enable a manager to work at his desk and supervise at the same time. These partitions afford him good light, air, warmth and comfort, and keep him in sight of his men.

Words versus Check Marks

Checking is quicker than writing, and for many purposes is entirely adequate. (See Figure 20.) In drawing up record blanks, routing sheets, reference forms, and the like,

provide for checking instead of writing whenever a check mark will serve.

OFFICE OF THE GENERAL MANAGER

Date, December 20, 1918

Referred to

Mr. Alcorn.....	Mr. Murrell
“ Andler	“ Pearson
“ Berwin	“ Peters
“ Bickerstoff	“ Peterson
“ Burger	“ Roswell
“ Diamond	
“ Eldridge	For attention
“ Ewell	“ approval
“ Frome	“ comment
“ Harris	“ report
“ Hylan	“ reading
“ Mallory	“ reply direct.....
“ Martin	“ return to G. M.....
“ Monroe	“ file

Figure 20. Checking System

When a busy executive has a number of papers to pass along, the addressing of them for the inter-organization delivery and the noting upon each the directions required becomes a considerable task. The use of such a blank as here shown simplifies the process materially.

Use of Both Hands

Use both hands whenever the work can thereby be expedited. Just because a man happens to be right-handed is no reason for the left hand to serve only as a paper weight.

Head versus Heels

In a wholesale grocery house which was suffering from rapid growth, each individual order was turned over to a clerk who checked off the items of that order consecutively as he filled them. This plan required many clerks and the stock-room was a scene of incessant activity with much rushing back and forth. The clerks were paid a very low wage (\$8 per

week), but the cost of filling orders was high; still they "had always done it that way." Finally the congestion and delay became too great and as the next move, each clerk was given six orders to fill simultaneously as he went from place to place. This and the installation of a general trucking system, caused a decided improvement. Following this, the stockroom was departmentalized, the required number of order fillers stationed in each section, and the items of the order itself were distributed from the office to the departments and assembled in the shipping room. Wages were advanced twenty-five per cent, but the cost of filling orders was reduced fifteen per cent, because the clerks spent less time in walking and more time in taking goods from the shelves.

Dispatch several items on one trip.

Starting and Stopping

The office manual and the office clock call for every minute of the business man's time—with an interval for lunch—from 9 in the morning till 5 in the evening. During these hours he should be pushing the business incessantly. But the average man is a trimmer. He starts tardily and quits over-early. It is true that the foes of system—the seven little devils perched upon the desk all day long—are especially insistent at these times; nevertheless, they can and should be ousted.

Get under way promptly: keep under way to the close.

Day's Work Plan for the Secretary

The time spent in giving the secretary his directions can be cut down by arranging with him a day's work plan. Such a plan will care for all regular items and its flexibility permits the handling of specials.

Filing Short-Cuts

In filing large numbers of cards or other material, a preliminary assorting cuts down considerably the time required.

A box fitted with press-board guides serves very well for arranging correspondence for filing, a distributor with fan-like leaves is handy if the classes are not numerous. An ordinary sheet of cardboard properly ruled will handle small cards very well. Should the cards be 3 x 6-inch squares for example, mark off a 24 x 30-inch cardboard into 4 x 6-inch squares and letter these in alphabetical order, the latter in each case being placed near the top line of the square. Sort the cards out upon the proper squares, then file them into the card index.

Use of Symbols

Multum in parvo is attained by using symbols.

E. St. Elmo Lewis by jotting a figure on the pages of a trade paper in effect tells his secretary, "Clip this article at your convenience, place it among the other papers in the file basket, and later on when you dispose of these see that this one gets into the proper cabinet, behind the tab marked '21'" Figures express his filing system in code.

Professor Hótkhiss in correcting his English themes provides his students a full lesson on the principles of business composition though he jots only a few figures on the page. These figures in each case refer to rules and references which appear in printed form upon the margin, and hence can readily be consulted.

Standarize, then express the standard by a symbol.

Preparation for Dictation

When about to take up a batch of letters for disposal, many men without first ascertaining that they are ready to dictate, press the buzzer for a stenographer. It is only after the young lady appears, ready for her part of the task, that they discover that some necessary folder has not yet been secured from the file, that certain estimates are still to be decided upon,

or perhaps that a required conference remains to be held. In short, they are not ready to dictate and they discover this fact too late.

Always be ready to dictate when the stenographer is called.

It is true that her time is less expensive than an official's, yet even less expensive time should not be wasted. Moreover, some of the worst offenders in this respect are usually men whose salaries are little beyond that of a first-class stenographer.

Speed in Dictating

Dictate rapidly. The attempt itself stimulates thought, and is conducive to that quick, vigorous diction before which correspondence melts away.

Elimination of Wasteful Details

In answering a number of letters do not dictate the full name and address of each correspondent. This is time-consuming because the stenographer must write much of it in long hand, and quite needless since such details can readily be copied from the letter replied to, if this is turned over to her. As you reply to letter after letter, number each in order and dictate merely this number.

Dispatch in Handling Correspondence

Men commonly read their mail twice, once to get a general idea of its import and urgency, and the second time to give it detailed consideration. Condense most of this into the first reading. Dispatch the easy ones with finality; assort the remainder into the day's work file, at the same time underscoring significant words or phrases. In dictating later on you will be saved time which would otherwise be spent upon irrelevant details.

Color Schemes

A color scheme in the office can at times be made to serve a most useful purpose. One general manager, for example, assigns each department a color—red for the purchasing, blue for the accounting, green for the production, etc.—and the departmental color identifies all the forms and memoranda which are issued. Another employs colors to indicate different degrees of urgency. Papers in red must receive immediate attention, those in blue are to be disposed of today, and the white in the regular routine. The scheme is really nothing more than a color code, the various colors as symbols, representing whatever information has been previously decided upon.

Carbon Copies

Copying, which the use of carbon might have obviated, is unbusinesslike. It has become almost second nature for typists in transcribing dictation to make one or more copies at the same time, but this is only one of the many uses to which carbon sheets can be put. In most offices there are many other chances for saving by means of carbon copies, which as yet are overlooked.

Machines for Dictation

The dictating machine possesses certain advantages.

It is always ready; whether one gets down to the office an hour ahead of his stenographic force or prefers to dictate after office hours or at home in the evenings, he need only start the machine and talk.

The machine has no speed limit. The man who dictates like a "whirlwind" finds no brakes set upon his pace; the man who makes long stops in order to think out a hard letter or to hunt some necessary data, may do so without wasting anyone else's time.

The accuracy of the typed matter is commonly increased. There is many a slip between what the dictator says and the stenographer types—slight inaccuracies no doubt, but frequently embarrassing. The wax cylinder records faithfully what is entrusted to it and the typist, by using the back spacer, may have this repeated any number of times.

The machine also frees the typist from interruptions. When busy with filing, typing, or other duties, she is not obliged to drop them upon signal that her employer has thought of a letter or memorandum he wants to get off his mind.

Considerable criticism has been directed toward these machines, both by typists and dictators. The real source of these criticisms probably lies in faulty dictation. The man who speaks directly into the mouthpiece and enunciates his words clearly, turns out cylinders which a typist has no difficulty in transcribing.

The Automatic Correspondent

Those who handle a large volume of correspondence, particularly when the subject matter is limited, find themselves day after day going over pretty much the same ground. Orders, complaints, collections, sales talk—each of these topics constitutes a class within which exists a certain sameness and the letters to a hundred men in this class are often practically identical. When the tongue slips into well-worn combinations of words and the task of dictation becomes monotonous, it is a signal that short-cuts are overdue.

Many practical schemes are available to solve this problem. These are occasionally subjected to criticism by those who claim the letters produced are inferior. But what constitutes a good letter? Is it not, after all, one that produces the desired effect? Does it give the inquirer the information he wants? Does it convince the prospect he needs the prod-

uct? Does it get the money and yet retain the customer's good-will? Should a form letter with a fill-in prove able to do these things, it constitutes a good letter and hence is worth using. As a matter of practice, the man who analyzes his correspondence can frequently, without any loss in effectiveness, turn over a hundred names to a typist with the single statement, "Send them letter number 4."

In an Eastern stove factory the overworked head of the correspondence department was prevailed upon to use these form paragraphs, and the account of his experience will suggest how they may be adapted to any business. As a start, the typists were instructed to make an extra carbon copy of every letter sent out during the next two weeks. The following subject outline was then drawn up:

Sales: 1-199

Openers	1- 24
Description of stoves	25- 49
Testimonials	50- 74
Price	75- 99
Service department	100-124
How to order	125-149
Miscellaneous	150-174
Closers	175-199

Orders: 200-399

Openers	200-224
Filled as ordered	225-249
Filled with changes	250-274
Cannot fill	275-299
Sending bill	300-324
Miscellaneous	325-374
Closers	375-399

Complaints: 400-599

Openers	400-424
Goods not received	425-449
Wrong goods sent	450-474
Damaged in transit	475-499

Dissatisfied with goods	500-524
Bill incorrect	525-549
Miscellaneous	550-574
Closers	575-600

The carbon copies were classified under the foregoing subject headings and then cut up into paragraphs and sorted into piles according to the outline. These piles were next taken up in order, all paragraphs judged of poor quality excluded, and the remainder revised with care. The quality paragraphs, after being numbered consecutively in each class and copied, were bound in a loose-leaf binder and indexed. It may be well to add that in copying, paragraphs of two separate classes were never placed on the same sheet since this would have been confusing when it came to planning the index.

A customer from up-state, let us say, writes in a long letter of complaint which boiled down means that he has received the wrong goods. The correspondent consults his form paragraphs a moment, jots a few figures upon a small card, clips this card to the customer's letter, and tosses it into the typist's tray. His part is done.

The customer, however, receives an excellent four-paragraph letter, which adjusts the matter to his satisfaction, and he is not at all concerned with the manufacturer's form paragraph system.

The use of form paragraphs offers certain practical advantages:

Speed. The correspondent can dispose of his letters more rapidly; the typist can transcribe faster.

Low Cost. The speed with which letters are produced and the fact that a typist may be substituted for a first-class stenographer lowers the cost per page. (See Figure 21.)

Accuracy. The slips which creep in as one dictates, and the errors made as the stenographer transcribes from notes are both reduced.

ORDER	PARA- GRAPHS	INSERTIONS
1	15	23d Mr. Thomas
2	400	
3	471	
4	581	
5		
6		
7		
8		
9		
10		
ENCLOSURES		
CHECKS FOR SPECIALS		

Figure 21. Card Used to Save Time of Dictating

This small card, clipped to the letter, represents the answer as dictated by the automatic correspondent. The typist inserts the special items specified in the column at the right, in this way increasing the flexibility of the system.

Quality. The paragraphs are well written, interesting, convincing, far superior to the grade of work usually turned out by the correspondent because they represent his one best way of putting a point. The sales argument, the acknowledgment of an order, or the reply to a complaint, once it has been standardized and reduced to form paragraphs, becomes independent of moods. An attack of indigestion or some hot altercation with a competitor does not disturb the persuasiveness of the selling talk nor the smooth diplomacy of the collection appeal when these repose in a correspondent's manual.

Freedom from Drudgery. There is no merit in chaining

a high-class mind to the drudgery of grinding out the same monotonous phrases day after day. If freed from such routine through the use of form paragraphs, the correspondent is more able to give special letters the hard, concentrated thought they deserve.

Flexibility. When the stock of form paragraphs has attained the degree of completeness to which it appears feasible to extend it, the man who may have commenced the use of this system somewhat skeptically will be agreeably surprised at the facility with which through its use the most varied letters can be prepared. Moreover, a single paragraph can often be made to cover a number of cases, and in a distinctly individual way, by leaving blank a space for the date, the name of the article, its price, size, or color, the name of the prospect, etc. Such items are noted on the card at the time of dictating (See Figure 21), and filled in by the typist. Form paragraphs may also be interspersed at will with paragraphs which are dictated solely for the letter at hand. This plan need cause no confusion whether one uses a dictating machine or employs a stenographer.

It is true that for the executive's correspondence the form letter usually proves inadvisable, yet the principle upon which it is based—a standardized communication—does apply with much force. Again and again several persons or firms are written concerning a certain subject in practically the same terms. What is in reality a form letter can be used if, after exercising care in dictating the first letter, the writer hands the stenographer the name and address cards of the remaining firms with the remark, "The same letter for these." The recipients of these letters concern themselves solely with the product laid before them. Is it a good letter?

Form paragraphs unmodified will not, of course, serve for all letters, yet it requires only an analysis of his correspondence to convince the average man that the percentage of it

which can be handled, and well handled, by form paragraphs is larger than he first suspected.

100 Per Cent Efficiency

The foregoing suggestions illustrate in only a limited way the many short-cuts which the man intent upon the prompt dispatch of his duties will work out for himself. His attention once directed into the short-cut channel, he will constantly speed up and eventually, as his "dispatch" efficiency approaches 100 per cent, surprise even himself by the celerity with which he moves through the day's routine.

In this respect his problem is similar in kind to that of a city fire department in cutting down the time elapsing between the receipt of an alarm and the departure of the firemen. The experiments conducted by such a department convey a telling message to business men complaining of "no time" while indifferent to short-cuts.

"At first," says R. T. Kent, "the horses stood in their stalls with their harness on them. The hitching of the horses required the fastening of several buckles. Some one then invented the drop harness, now universally used, and the number of motions in hitching a horse was reduced to three—snapping the collar round his neck, and the fastening of the two reins to his bridle by bit snaps.

"Later the horses were moved from the rear of the house to a point alongside the engine, so that they had only to travel a matter of a few feet to be in position under the harness. Some one else then invented a device which released the horses from their stalls automatically with the sounding of the alarm on the fire-house gong, affecting a further saving in time and motion.

'Instead of having the firemen descend stairs from their sleeping quarters, the sliding pole was thought of, which eliminated a great number of individual motions and saved many

seconds. And so on, as one device after another was perfected which saved motions, and thereby time, it was adopted, until now the 'motion efficiency' in a fire house is one hundred per cent. It is useless to improve it further, because it has reached a point where the company is ready to start to a fire before it has received the number of the box."

The Fire Department a Personal Incentive

The various short-cuts of a fire department appeal to us because a burning building impresses everyone dramatically with the value of time. The lurid flames, the clanging engines, the shower of sparks, the hoarse shouts of firemen, all urge speed. Yet in a private office the sands of life are counted out, and here as elsewhere, used or unused, they return no more. In its own way quite as dramatic as the burning of a building into ashes, this twenty-four hours a day passes through our hands and then fades into the great beyond. "Dost thou love life? Then do not squander time, for that is the stuff life is made of."

The fact that short-cuts will save time, therefore, should assure their employment. The benefits are tangible, realizable. The adoption of the short-cut itself marks an increase in efficiency and the time saved when capitalized is a handsome reward.

The Daily Use of Short-Cuts

To seek short-cuts is a worth-while principle. The executive who adopts this principle

1. Emphasizes results, not motions.
2. Plans his work, then works his plan.
3. Keeps alert for time-saving schemes.
4. Gives a task the time it is worth, then gets it done on time.
5. Concentrates, decides, and dispatches.

EXERCISES

Short-Cuts in Use

In order to secure the benefits which await you in short-cuts, check through the foregoing list, raising in each case these questions:

Do I now make use of this short-cut? Compared with my former results, how much time approximately has its adoption saved me daily?

In case this particular short-cut is not now being used, should it be used? Compared with my present methods, how much time approximately would its adoption save me daily?

What short-cuts do I now use which do not appear upon this list? What is their approximate time saving?

What additional short-cuts can I profitably devise for myself?

This exercise will provide the specific plans for driving directly to the goal; for making every moment and every motion result-getting.

A Test of Progress

Do you know at what speed you can really work, if necessary? As a test, try this exercise once in a while. Complete a day's work in your usual time, recording the various tasks undertaken together with the time when each was commenced and completed. File this record away for a month, or two months, or whatever time you like.

Some day when your schedule can be arranged to duplicate the former day's work, use its records as today's quota. Concentrate, decide, dispatch; let finished tasks emerge from your hands with all possible speed and precision.

Such a test when carried out properly reveals this profound truth, that within yourself are reservoirs of power commonly unused. By rousing these latent forces, personality mounts above its old self and accomplishment attains a new maximum. The efficient man—myself—thus enters into his true heritage.

The Short-Cut Point of View

The matter of short-cuts has a deeper significance than simply the clipping of five minutes here, fifteen minutes there, throughout the day, valuable as that accomplishment may be. It means, whatever the object, its attainment with minimum wastage of time and effort, a proceeding toward it with a maximum of effectiveness.

This deeper significance of short-cuts is indicated in the account of five salesmen engaged in the field selling of a specialty whose records have been compiled in chart 9. During the twenty-four days, D had called upon 300 prospects; A upon only 111. But A,

who used the telephone intensively in the making of appointments, got in a full presentation once out of every two calls made, whereas D succeeded in only one case out of ten in presenting his full sales argument.

ITEM	SALESMAN				
	A	B	C	D	E
Total Calls	111	245	103	300	165
Partial Presentations Only...	10	41	51	41	..
Full Presentations	55	71	43	30	49
Calls Per Day Averaged.....	4.6	10.2	4.2	12.5	6.8
Full Presentations Per Day Averaged	2.2	2.9	1.7	1.2	2.0
Total Orders Secured.....	22	21	19	7	3
Average Full Presentations Per Order	2.5	3.3	2.2	4.2	16.3
Average Time Per Full Presentation (Minutes).....	48	58	61	69	53
Average Time Spent Daily in Full Presentations (Hours and Minutes)	1:51	2:50	1:25	1:26	1:48
Total Earnings.....	\$550	\$525	\$475	\$175	\$75
Earnings Per Hour Spent in Full Presentations.....	\$12.36	\$7.70	\$10.80	\$5.10	\$1.74

Test Chart 9. The Results of Twenty-four Working Days Compiled from the Records of Five Specialty Salesmen

The quality of the full presentation made also must have differed considerably, judged by the very matter-of-fact test—the average number of full presentations per order secured. C showed himself here of high grade, closing successfully almost every other man to whom he had presented his proposition; E was here especially weak, being quite ready to accept, it seems, anything in the way of excuses the prospect had to offer. It does not suffice merely to have things under way; what counts is the work which is finished—the name on the dotted line.

These five salesmen, as they faced each new day, had certain hours and certain efforts which they sought to turn into money returns. The hours when real salesmanship was under way—the time devoted to full presentations—were whittled down in their respective cases

to 1:51, 2:50, 1:25, 1:26, 1:48; the use of this time resulted in earnings per hour, varying from \$1.74 to \$12.36.

The personal manager in his list of tasks scheduled for attention has, as it were, so many prospects upon whom to call. Shall he, in common with certain of these five salesmen, be led off into winding paths and be put off with subtle excuses for non-performance; or shall he employ his time and effort in the direct presence of these prospects under those conditions of concentration, decision, and dispatch which encourage full presentations and a strong close?

CHAPTER X

EFFICIENCY HABITS

There is no more miserable human being than one in whom nothing is habitual.—WILLIAM JAMES.

Henry Ford and The Radiator Cap

Habit has come to be almost a term of reproach in modern business. It is associated in popular thought with defective will or with imperfect intelligence. We speak of a man's bad habits, meaning practices of personal indulgence more or less questionable in themselves which impair his effective command of such powers as he has developed. Or we speak of his business life as ruled by habit, meaning usually that his mind is no longer active, that he is working mechanically and ineffectively, or, in brief, as somewhat of an "old fogey."

This, however, is only a part of the matter, and the negative part at that. The other side, that which gets at the real nature of habit, is revealed in a story told of Henry Ford, who in transforming automobile manufacture from a "splendid adventure" into a process almost as certain as the tides, has taught us all the lesson of standardization and habit—and incidentally amassed millions of dollars as part of his personal reward.

A prominent consulting engineer once spent a day with Mr. Ford to discuss certain engineering problems. He noticed that during every spare moment of the morning Mr. Ford kept taking from his pocket a radiator cap and was apparently engaged in some calculation regarding it. On inquiry he learned that the part was of brass and cost half a cent too much to build. He suggested threading it in a slightly dif-

ferent way, to which Mr. Ford replied: "Yes, that would be cheaper, but whenever the water boiled it would get hot and bind." To several other suggestions which he ventured, Mr. Ford immediately pointed out some difficulty, whereupon he realized that his host had studied the problems involved far beyond any suggestions he might be able to make. During the afternoon Mr. Ford continued to give his attention at odd moments to the cap, devoting several hours to its consideration. That evening the engineer remarked: "I cannot understand how this small part, costing two or three cents at the most, can be worth so much of your time. It is only a fourth or half a cent that you can save in each piece."

"Yes, that is true," Mr. Ford replied, "but I am not thinking of one radiator cap. We shall need one on each of 185,000 cars this year, besides 25,000 for repairs. That makes 210,000 for this year. We will make at least 50 per cent more cars next year. There is a saving of \$2,500, and when we get it settled it will be right for the next twenty years."

Justifiable Expenditure

The point of this story comes at the end. "Planning" that cap cost some hours, perhaps, of the time of a highly expensive man—an extravagance taken by itself. But the expenditure was justifiable because once the operation was worked out it could be made a matter of indefinite repetition at a cost virtually negligible. Before it was thoroughly standardized, there was need from time to time of tinkering and rearrangement by other upper officials—which was expensive. Now it was "right for twenty years" and no one had to think about it.

Habit does essentially the same thing for the individual's work, for the executive's personal routine. It transforms what is scientifically accurate into what is commercially practicable.

In reality, therefore, habit represents the essential part of standardization. Standardization, we have seen, includes the planning of a process, etc., perhaps at the cost of much time, thought, money; and also dispatching it—carrying through the operations determined upon—perhaps at the cost of intense effort of will. But there must follow repetition of the new activity without change an indefinite number of times—that is to say, the process must become automatic, unforgettable, a habit.

The third stage is of vital importance to the practical man. Without it standardization would be merely a pompous and expensive way of doing what could be done perhaps as well by one swift guess. With it the improved method, the process which has been proved right becomes a permanent possession—more efficient and more profitable with every repetition. The profit from a standardized operation does not begin to come until the operation has become a matter of course—a habit. *After* that point the costs go steadily down and the profits increase.

The Nervous System a Business Organization

Consider a little the way in which the human mind works, or rather the structure and functions of the nervous system on which the working of the mind depends. Formidable psychological discussions in highly technical language may well leave the business man's mind confused and impatient with the whole subject. Yet psychology means nothing more than knowing how the mind works. Understanding its principles enables one to get better service from his own mind—his nervous apparatus.

The nervous system, as we call it, extends throughout the body. (See Figure 22.) Its various parts are composed of tiny plastic cells, which strike each other and rebound when messages—those from the outside are called sensations—are

passed along. Study of the system and its operation will show in the first place its curious resemblance to the organization of an active business house, with subordinates, sub-executives, general manager, etc.

The first impressions or sensations—messages—from the

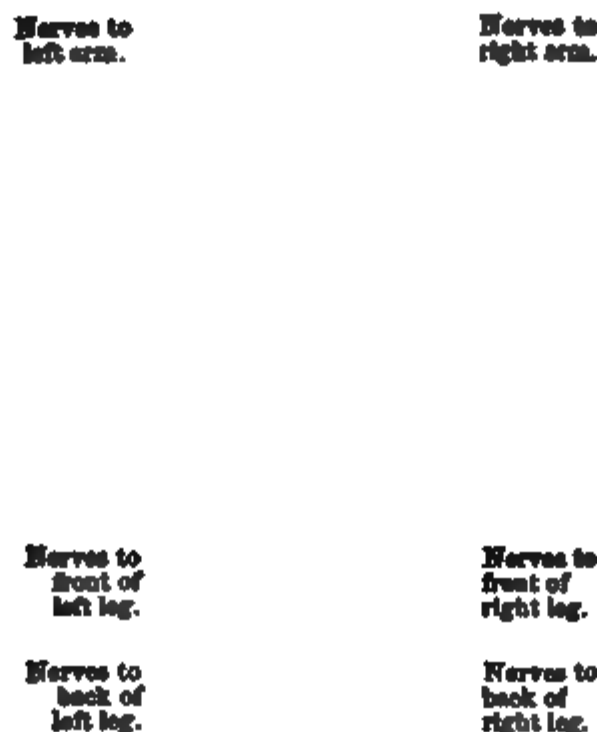


Figure 22. Brain and Spinal Cord, with the Thirty-one Pairs of Spinal Nerves

(Reproduced from Doty's "Prompt Aid to the Injured," by permission of D. Appleton & Company)

outside come through the organs of sight, taste, smell, feeling, and hearing to the nerves. The nerves may be compared to the telephone and telegraph wires, the railroads, and the mails, which keep a business organization in touch with its materials and markets.

But these impressions or sensations do not travel very far along the nerves towards headquarters until they meet a little nerve knot, or ganglion, which passes upon their message. If it is of a routine sort merely, the ganglion decides the matter itself, just as an office boy might under similar circumstances. A message of higher sort goes on by the ganglion and quickly reaches the medulla oblongata.

The medulla oblongata rests at the top of the spinal cord, as a sort of clearing house for automatic and semi-automatic actions. While it is of higher rank than the myriad ganglia, its functions are very much the same. It might be referred to as the chief of the routine department. Certain messages and orders are too important for dispatch by the medulla, of course, and these are passed on to the cerebellum.

The cerebellum is the "little brain" lying just above the medulla, yet still far back and low in the brain case or skull. It has charge of the voluntary muscles, that is, over those which operate under the direction of our will. The beating of the heart goes on whether we think of it or not, but when we sign a contract the cerebellum directs the muscles. In general, the cerebellum might be called the seat of the action department.

The cerebrum, crowning the nervous system both in size and function, acts as general manager in the nervous organization. It fills almost all the brain case. Just as the most important messages and orders come finally to the general manager, so the main business of the mind, its general policy so to speak, is transacted in the cerebrum.

Habit is Standardized Nerve Action

It is a striking feature of the business organization of the mind that work is constantly being shifted, as it becomes familiar, from the higher faculties to the lower ones. The first time a certain action is performed, such as braking

an automobile, so great is the difficulty encountered that the general manager himself must take a hand in directing the muscles. Under continued repetition, however, the nerve cells shape themselves in a more definite order—the action is controlled by sub-officials—until finally a habit is formed. As the motor car ahead of ours stops, we put pressure on the brake without in the least disturbing those creative business plans our cerebrum may be shaping up.

This process by which actions that are often repeated come to be automatic, the process of the formation of habits, is going on all the time. It is regular and inevitable.

The Efficient versus the Inefficient Way

The efficient man keeps the big things in mind, as we have said, but he also keeps his mind free and open about them—does not let himself form habits about matters of great importance. But the little things he standardizes according to a well-considered plan.

The inefficient man does not reduce to habit the routine tasks of the day. The writing of every letter, the O K'ing of every order, the use of particular pencils or pens, the time of going out to lunch, the things he will eat, are to him all subjects of express volitional deliberation. His mind is ever harassed and distracted, and the reason is simple; the general manager is doing office boy work.

Every useful action possible, such as ways of dressing, eating, working, in short, all the minor details of existence, should be made automatic and habitual. All such matters can then be turned over to the lower nervous systems for attention, leaving the general manager unfettered to transact the main business of life. The nervous system is designed for this very purpose and the man who would be efficient takes advantage of its wonderfully simple yet adequate organization.

The insistence in former chapters upon what the reader may have considered small matters, is here explained. The man who does not keep the clips or the stamps or the envelopes in certain definite places has to call in the higher brain center when he wants to find one of them. The man who does not "make a note of it," who refuses to employ a secretary, who will not use a filing system, also is insisting that the general manager do all the work.

Double Waste

There is another side to the matter. It is doubly wasteful for the general manager to do office boy work: he is kept from doing his own work and he is less efficient at the routine work than the boy is. When a person has to put his conscious will upon braking the automobile he will not do it nearly so well as when it is taken care of by the automatic centers. So with every operation in life. Practice makes perfect, we say. The reason is that with practice an activity is taken over by the lower nerve centers, swift, steady, and serene.

In the mental life quite as truly as among large corporations, there is need for both general manager and office boy. But neither should do the other's work.

Productive Power Capitalized

The various plans outlined in previous chapters at times have called for the substitution in place of one's familiar rule-of-thumb method of standards more or less new. And it is true that this demand for substitution calls into action the higher brain centers and for the time being is inefficient. But not for long. The new habit is in truth an investment which once made will pay dividends long into the future. "Prove all things," said the Apostle who reached every rank of people, but "hold fast that which is good."

Whoever imbibes deeply in his nervous tissues the habits

of truthfulness, cleanliness, industry, kindness, appreciation, moral integrity and hope, later lives upon these habits without price and without effort. Likewise he who by the sweat of his brow raises himself to a new level of personal efficiency henceforth shall receive dividends from the most gilt-edge of securities—his own productive power capitalized as efficiency habits.

In making such habits a man's own, there are certain simple rules which if followed will be of great assistance. Some of these rules are discussed on the following pages.

Habits Inevitable; Which Kind?

In thinking over habits it is well to recognize that the nervous system as we grow older becomes less plastic. "Already at the age of twenty-five," says William James, "you see the professional mannerism settling down on the young commercial traveler, on the young doctor, on the young minister, on the young counselor-at-law. You see the little lines of cleavage running through the character, the tricks of thought, the prejudices, the ways of the 'shop,' in a word, from which the man can by-and-by no more escape than his coat-sleeve can suddenly fall into a new set of folds. On the whole, it is best he should not escape. It is well for the world that in most of us, by the age of thirty, the character has set like plaster, and will never soften again."

As far-sighted personal managers intent upon developing effectiveness in the highest degree, into what kinds of producing methods shall we allow our nervous system gradually to harden? Into methods hit upon by chance? Then the attainment of our goal being left to accident, we are as mariners without compass ever on the verge of shipwreck.

Right methods are not the result of chance, but the product of careful analysis and constructive thought. These right methods are called standards; the *summum bonum* in all at-

tempts to attain efficiency and the real goal in the formation of habits.

Standardization is the first step in the formation of habits.

Thought Followed by Action

The standard must not remain merely a thought, an abstraction over which in the mental world we can sentimentalize and dream ourselves into the fond notion that somewhere, sometime, we really shall become efficient. "Hell is paved with good intentions." The efficient man sets about attaining his effectiveness now, and he attacks the first problem feasible no matter how small; he does not wait for the new year with its resolutions, nor until he be promoted to his present superior's desk.

"The actual presence of the practical opportunity," says Bahnsen, "alone furnishes the fulcrum upon which the lever can rest, by means of which the moral will may multiply its strength, and raise itself aloft. He who has no solid ground to press against will never get beyond the stage of empty gesture-making."

When the resolution to accomplish seizes you, when the glow of inspiration permeates your being through and through, reach for a sheet of paper and write down at least one specific, concrete order to yourself. Impractical, nerveless sentimentalism, spineless indecision will then be avoided, and your fine resolution will begin to bear practical fruit.

The habits you aspire to gain are reached not by moralizing or theorizing but through concrete acts.

Keeping Fully "Sold" On a Subject

Salesmen are all familiar with the prospect who is about to sign on the dotted line, then suddenly draws back. Sometimes he signs but changes his mind and cancels the order before the salesman can get away; sometimes he wires

the house the cancellation, sometimes he refuses the shipment, sometimes he returns the goods. In all these cases the salesman explains the difficulty by saying the prospect was not fully "sold."

It is the same in forming habits; resolution is necessary, you must fully "sell" yourself on the new habit. "Accumulate all the possible circumstances which shall re-enforce the right motives," says William James, "put yourself assiduously in conditions that encourage the new way; make engagements incompatible with the old; take a public pledge, if the case allows; in short, envelop your resolution with every aid you know. This will give your new beginning such a momentum that the temptation to break down will not occur so soon as it otherwise might; and every day during which a breakdown is postponed adds to the chances of its not occurring at all."

Enter into the new habit with every possible incentive and resolution.

The Road to Full Efficiency

The best of incentives in the formation of habits is success. The man who dispatches an extraordinary day's work is thereby encouraged to surpass himself still further; the man who exceeds a hard schedule feels confident of his power to negotiate a harder schedule; success has encouraged him.

Success, however, is precisely what the efficiency enthusiast is most likely to deny himself. With a sudden realization of the heights to which he may attain, he draws up an impossible plan. Failure is inevitable, a gruesome failure, for the wicked habits just swept out return pell-mell, multiplied in number like the seven devils of old. The aspirant for efficiency has been ruined by attempting too much.

In acquiring habits we are in the presence of two hostile powers: one the new standard, the other the old rule-of-thumb method. "It is necessary, above all things, in such a situa-

tion," says Professor Bain, "never to lose a battle. Every gain on the wrong side undoes the effect of many conquests on the right. The essential precaution, therefore, is so to regulate the two opposing powers that the one may have a series of uninterrupted successes, until repetition has fortified it to such a degree as to enable it to cope with the opposition, under any circumstances. This is theoretically the best career of mental progress."

The path is clear. In moving toward personal effectiveness beware of undertaking too much at the start. The goal worth while is not to be attained in one day. Introduce one method, then another; mend your ways day by day. The brain cells are plastic and subject to modification, but they are no mushroom growth and cannot be reshaped over night. Proceed steadily though slowly, allow yourself to succeed again and again as you advance. While the full efficiency desired is a matter of years, not days, each time a thing is done well the next time it is made easier.

Suffer no exception until the new habit is securely rooted in the nervous system.

The Influence of Habit Upon Creative Work

Whatever aversion the business man has to forming habits is commonly found upon investigation to be due to a fear that once bound by habit he may degenerate into old-fogyism and lose his power to do creative work. To a certain extent this fear is justified. A habit unchecked may in the end assert mastery and, as is often seen among older men, lead its once brilliant victim to a treadmill existence. Yet after all the danger is much the same when an office boy is engaged; he, too, if unchecked might oust the general manager. The remedy, however, is certainly not to dispense with office boys, but simply to exercise discipline over them. When this is done, the habits, over which in the beginning we have labored,

are transformed into faithful subordinates, ever on call, ready to serve. System then exists in the man, embedded in his nervous tissues.

What has this result to do with our all-round executive effectiveness? Asked to make a rough classification of his activities, the business man is likely to respond, "Routine work and creative work." Going further he will probably say, "Routine work takes more time but creative work is more important." This is entirely correct. Creative work it is which enables a business man to rise to his full genius as an executive—but routine work must be done.

It is precisely the systematization of this never-ending routine which the foregoing chapters have had in view. The big things in business, of course, do not center in details well handled, office layouts, private secretaries, short-cuts, daily plans and schedules; nevertheless, because they do care for his routine, the executive's personality is left unhampered to grapple with larger problems. Through their use he attains real freedom.

The system with which we have been concerned to this point is thus the foundation of creative work.

EXERCISES

Standardizing Good Practice

"Did I make the most of today?"

It is a good question to raise. The man ambitious to forge ahead in business will put into the day's work his best, but, while this practically guarantees progress, as a matter of safety and satisfaction to himself he ought to check his results occasionally.

Such a taking of stock let us make at this point. What we have sought in the preceding chapters is the systematization of the day's work, and we now desire to review in general terms our situation. This review is outlined in Test Chart 10.

Suppose we grade our replies to the nine questions on the basis that standardization equals 100 per cent. Taking up each question in order we ask: "My present situation justifies what grade with

respect to this question?" When all the replies have been graded, add the percentages and divide by nine. What do you average?

This average when collected in the square underneath the outline represents your attainment to date. The raising of the number steadily until it approaches 100 per cent constitutes our next problem. We wish to solve this problem because the average represents our attainments capitalized as habits.

SYSTEMATIZING MY WORK		
I. MY JOB For what duties am I held responsible? Which of these are most important? Which of lesser importance? What revision of my job's scope would make me more productive?	II. MY DAY'S WORK What things have I to do today? How much time is each worth? In what order shall I attack them?	III. MY METHODS Does each duty get its full time, and no more? What obstacles hinder me, and how shall I deal with them? Is my mind systematic in its work, are my efforts properly organized?
Average..... Date		

Test Chart 10. The Systematization of the Day's Work is Here Reviewed in Nine General Questions

Benjamin Franklin's Method

A quaint example of how a person may utilize the ratchet principle of control through habits is found in Benjamin Franklin's "Autobiography," and the account is cited here, since the method adopted by Franklin worked successfully in a field where definite results are particularly difficult to secure and record.

"It was about this time," writes Franklin, "I conceived the bold and arduous project of arriving at moral perfection. I wished to live without committing any fault at any time; I would conquer all that either natural inclination, custom, or company might lead me into. As I knew, or thought I knew, what was right and wrong, I did not see why I might not always do the one and avoid the other. But I soon found I had undertaken a task of more difficulty than I had imagined. While my care was employed in guarding against one fault, I was often surprised by another; habit took the advantage of inattention; inclination was sometimes too strong for reason. I concluded, at length, that . . . the contrary habits must be broken, and good ones acquired and established. . . . For this purpose I therefore contrived the following method. I included under thirteen names of virtues all that at that time occurred to me as necessary or desirable, and annexed to each a short precept, which fully expressed the extent I gave to its meaning.

"These names of virtues, with their precepts, were:

"1. *Temperance*. Eat not to dullness; drink not to elevation.

"2. *Silence*. Speak not but what may benefit others or yourself; avoid trifling conversation.

"3. *Order*. Let all your things have their places; let each part of your business have its time.

"4. *Resolution*. Resolve to perform what you ought; perform without fail what you resolve.

"5. *Frugality*. Make no expense but to do good to others or yourself; i.e., waste nothing.

"6. *Industry*. Lose no time; be always employed in something useful; cut off all unnecessary actions.

"7. *Sincerity*. Use no hurtful deceit; think innocently and justly; and, if you speak, speak accordingly.

"8. *Justice*. Wrong none by doing injuries, or omitting the benefits that are your duty.

"9. *Moderation*. Avoid extremes; forbear resenting injuries so much as you think they deserve.

"10. *Cleanliness*. Tolerate no uncleanness in body, clothes, or habitation.

"11. *Tranquillity*. Be not disturbed at trifles, or at accidents common or unavoidable.

"12. *Chastity*.

"13. *Humility*.

"My intention being to acquire the *habitude* of all these virtues, I judged it would be well not to distract my attention by attempting the whole at once, but to fix it on one of them at a time; and, when

I should be master of that, then to proceed to another, and so on, till I should have gone through the thirteen. . . .

"I made a little book, in which I allotted a page for each of the virtues. I ruled each page with red ink, so as to have seven columns, one for each day of the week, marking each column with a letter for the day. I crossed these columns with thirteen red lines, marking the beginning of each line with the first letter of one of the virtues, on which line, and in its proper column, I might mark, by a little black spot, every fault I found upon examination to have been committed respecting that virtue upon that day.

"I determined to give a week's strict attention to each of the virtues successively. Thus, in the first week, my great guard was to avoid every least offense against *temperance*, leaving the other virtues to their ordinary chance, only marking every evening the faults of the day. Thus, if in the first week I could keep my first line, marked 'T,' clear of spots, I supposed the habit of that virtue so much strengthened, and its opposite weakened, that I might venture extending my attention to include the next, and for the following week keep both lines clear of spots. Proceeding thus to the last, I could go through a course complete in thirteen weeks, and four courses in a year. And like him who, having a garden to weed, does not attempt to eradicate all the bad herbs at once, which would exceed his reach and his strength, but works on one of the beds at a time, and, having accomplished the first, proceeds to a second, so I should have, I hoped, the encouraging pleasure of seeing on my pages the progress I made in virtue, by clearing successively my lines of their spots, till in the end, by a number of courses, I should be happy in viewing a clean book, after a thirteen weeks' daily examination."

Whatever we may think of Franklin's undertaking, the method itself affords a good object lesson in personal management. Franklin:

Set for himself a general purpose.

Analyzed this general purpose into its constituent elements.

Prepared definite plans, with written instructions.

Checked his progress regularly.

Few problems facing the executive, hard though they appear, are able to withstand such a systematic assault.

Applying the Principle

Suppose we utilize the principles here exemplified, applied in a simpler form to the problems immediately before us.

The exercises which have been worked through in connection with preceding chapters will have revealed various possibilities,

among which we may now select the choicest yet unrealized. What we wish to select are certain possibilities in which a given amount of time and effort is able to effect a maximum improvement. Use Test Chart II for recording your choices. These choices finally we proceed to realize in practice, employing for this purpose the rules of habit formation discussed in the present chapter. The check marks in the last column record our advance.

TEN THINGS TO DO IN ATTAINING EFFICIENCY	THE PROPER WAY TO DO EACH IS AS FOLLOWS	HABITS I SHALL THUS FORM	HABITS NOW Es- TABLISHED

Test Chart II. Capitalizing Attainments as Habits

PART IV

THE THINKER IN BUSINESS

He who hopes for success must organize, prepare, enlist method and science, if he would live upon the high plane which business has now reached.—A. C. BARTLETT, President of Hibbard, Spencer, Bartlett and Co.

Keeping a little ahead of conditions is one of the secrets of successful business; the trailer seldom goes very far.—CHARLES M. SCHWAB, Chairman, Bethlehem Steel Corporation.

CHAPTER XI

INITIATIVE AND VISION

Some men seem to have a golden touch. Everything to which they turn their hand yields miraculously.—FRANK W. TAUSSIG, Harvard University.

Routine and Constructive Thought

The aim of the preceding chapters has been so to aid in systematizing the day's work that its necessary routine may be cleared away with ease and dispatch. While this act in itself is an attainment much to be desired, its most important result is the freeing of the executive's mind for constructive effort. The real leader in business is the man who thinks, investigates, weaves new plans, and looks ahead.

The succeeding chapters deal with the principles and methods through which this constructive effort is brought into most effective operation. The problems treated are difficult because they concern highly complex elements in human nature and are vital because they concern the continued life and growth of the business or department of business over which the executive presides.

The Perception of Opportunity

The first question which the man who intends to do really big things in business puts to himself is, "Where are my best opportunities for profits?" He raises this question in no narrow, sordid sense, because the ambition to do things worth while, to achieve distinction, to acquire knowledge and exercise skill, to play in a masterful way the two great games of business and life, constitute his persistent motive force. Granted, however, that these things, and not a sordid love of

money for itself alone, are what he would have, the way to attain them requires that first of all he locate the most profit-laden opportunities. He is not merely to "dig in" and look no further when the first prospects show.

In the search for possibilities of superior service or, in other words, for opportunities for profits there are at best five broad lines which deserve consideration:

1. Exploitation of natural resources
2. Development of inventions
3. Improvements in production and distribution
4. Fluctuations in values
5. Supplying known wants

1. Exploitation of Natural Resources

"The world puts its richest prizes at the feet of great organizing ability, enterprise, and foresight," says John D. Rockefeller, Jr., "because such qualities are rare and yet indispensable to the development of the vast natural resources which otherwise would lie useless on the earth's surface or in its hidden depths."

In her oil fields, timber tracts, coal beds, mineral deposits, waterfalls and virgin land, nature has abundantly provided for the American. While these rich opportunities cannot last forever, they are not yet exhausted. Those which remain, however, require wiser and more economical management than has characterized much of their treatment in the past, which was well termed "exploitation," in the worst sense of the term. Those who controlled them usually considered that they were privileged to grind labor in production and at the other end extort the largest amounts possible from the consumer.

The resources, such as forests, coal, and water-power which yet remain in the hands of the government will be guardedly leased to parties who desire to use them, and the

use of those already in private control is liable to be restricted. Nevertheless, all of these natural resources are going to be utilized in the future more effectively than ever before. To manage and operate them under government lease or regulation will demand greater business ability and better executive capacity than in the past, when inefficiency in management could be made good by an extra charge to the consumer. Both in reputation and in compensation the rewards will be sure and rich, although it is not likely that any aggregations of wealth such as the Rockefeller fortune will ever again come into the hands of an individual.

2. Development of Inventions

John N. Willys who later was to enter a new field with great success, stood one day in 1899, looking out of a window in a Cleveland skyscraper, when he noticed a four-wheeled vehicle creeping along the street. No horse was attached to it. From where he stood it looked exactly like a carriage.

Quoting Mr. Willys' own words in relating the incident, "I immediately said to myself, that machine has all the bicycles in the country beaten hollow—I was then in the bicycle business. I made up my mind that I would get into this new field at the first moment possible. I investigated and found that I had seen a Winton car; but I did not then get a chance to examine it."

The resolution thus quickly made, led Mr. Willys eventually to his present place in the foremost ranks of motor car manufacturers as President of the Willys-Overland Company.

Mr. Willys is typical of men who discover, invent, or make available, new means of want-gratification.

In the field of transportation, trolley cars, steam trains and automobiles have almost superseded horses and coaches. For purposes of communication, the telephone, the typewriter, and the telegraph replace the pen and the messenger boy. In the

home, the electric light, the refrigerator, the gas stove, the vacuum cleaner, the washing machine, the steam radiator, and the packages of breakfast food and bakery products, have all replaced the slower or less-efficient means.

The moving picture industry has made fortunes for scores of men. The varied forms of the phonograph have built up great industries. The automobile industry has opened the way to success for countless men.

The Ford Motor Car Company, the National Cash Register Company, the Burroughs Adding Machine Company, the Westinghouse Air Brake Company, the American Radiator Company, the Mergenthaler Linotype Company, and hundreds of other concerns based upon successful invention and now capitalized at many millions, were once without any tangible value whatever—simply ideas.

Since consumers invariably have more wants than can possibly be gratified, the inventor or the man who wishes to make an invention commercially successful, must assure himself that it satisfies some of these ungratified wants. If he does this he founds his profit-seeking enterprise upon a most secure basis.

3. Improvements in Production and Distribution

The business executive is now and will in the future be subjected to pressure exerted by the worker for a larger compensation and by the consumer for lower prices; or, what is the same thing, the consumer will demand more for what he spends. The executive must seek the solution of this problem along two chief lines: (1) by improvements in production, (2) by improvements in distribution.

The most intelligent, the most alert, the most resourceful manufacturers and dealers are going to excel in this improvement of methods and will build up big businesses for themselves. The less intelligent, the less teachable, and the too

conservative will fall behind and in the fierce struggle the competitors will unerringly align themselves, some far in the rear. With improved methods of production and distribution a certain price comes to be set for a commodity, which spells actual loss to the plodding and the unprogressive but gain to the enterprising, to whom the selling price still allows a comfortable profit. Their use of improved methods gives them a lower cost and a wider margin for profit.

4. Fluctuations in Values

Another opportunity for business gain is found in the fact that practically every commodity with which the business man has to deal—wheat, cotton, oil, merchandise, metals, machinery, real estate, building materials, labor—fluctuates in price from year to year and even from day to day.

Such variations delight the shrewd bargainer since he thereby sees an opening for that oft-used principle of his, "buy low and sell high."

"The only time I ever saw John Rockefeller enthusiastic," said an early acquaintance in commenting upon Mr. Rockefeller's ability to drive a good bargain, "was when a report came in from the creek that his buyer had secured a cargo of oil at a figure much below the market price. He bounded from his chair with a shout of joy, danced up and down, hugged me, threw up his hat and acted so like a madman that I have never forgotten it."

The industrial history of America for decades has been characterized by a series of alternating periods of prosperity and depression, which, despite certain highly commendable efforts to provide against them, doubtless will continue in the future. Such periods of prosperity and depression, whether accompanied by wars or peace treaties, droughts or bounteous crops, easy money or financial stringency, result in the upheavals which profit-seekers heretofore have utilized to their

advantage. Whether he deals in real estate, securities, grain or foreign exchange, the business man bases his operations upon the prevailing price level of the commodities in which he is interested. He estimates the future in terms of a changed price level and either buys or sells as the result of his estimate.

5. Supplying Known Wants

In books on salesmanship and among groups of salesmen spinning yarns in hotel lobbies the "prospect" is often conceived as of jelly-fish mentality, it being the salesman's task to trick him deftly into buying something he does not want. A moment's reflection will show that most of the selling in the world is the sale of things that people want, are greatly interested in, and in fact must have. The great businesses of the world are the production and sale of necessary commodities to consumers who are anxious to get them.

All of us spend the largest proportions of our income in supplying ourselves with the things we must have. Each human being requires food, shelter, clothes, fuel and light. These are the great necessities of life. Most of us make our living and what measure of fortune we can by producing or selling something to supply these diverse wants. People in the future are going to demand these same things in a fuller measure and of better quality, and all who desire business openings can find them in the production, the manufacture, and the distribution, not of the things people do not want, but of the things they do want. Here we have again the idea of service, which constitutes in business the great, never ceasing opportunity.

Needs and the Law of Service

In the location of opportunity it is significant to note that the leaders of business today, however different the particular commodity with which each deals, usually proceed upon one

central principle. Men such as John Wanamaker and Marshall Field in merchandising, Frank A. Vanderlip and Otto Kahn among bankers, and Henry Ford and W. L. Douglas among manufacturers win their large profits through superior service. Upon the basis solely of such superior service, they have been able to keep friends, patrons, and employees; to build up strong, enduring business organizations; and to shape for themselves notable careers as gainers of profits, in the best sense of that word.

"This is the service the new business man now can render his day and his people," declares E. St. Elmo Lewis, "create a greater business in the service of the people."

The Many Roads Upward

The opportunities for profits, indicated in a general way by the foregoing paragraphs, are exceedingly numerous. In fact, the thirty largest fortunes of America, according to a tabulation recently made by *Forbes' Magazine*, had as their chief source, sixteen different businesses. The road to profits obviously is not a narrow, hedged-in path; it is not, indeed, a path at all, but a broad highway along which many types of vehicle may pass.

"Do not hesitate to engage in any legitimate business," says Andrew Carnegie, "for there is no business in America, I do not care what, which will not yield a fair profit if it receives the unremitting, exclusive attention, and all the capital of capable, industrious men."

The Business Man's Task

The Great War has revolutionized business methods and has inculcated certain business truths that will mean a permanently changed business order. German efficiency, which before the war was rapidly possessing itself of the trade, the manufacturing, and the financing of the world will not find

its former rivals, France, Great Britain, and America, unmindful of the new order. Purged of many an old inefficiency the Allied nations will go forward upon a new basis. If we are to play our part as a great industrial nation, the demands on those who aspire to lead will not slacken. The business men of the future, the producers and distributors of commodities, will have man-sized jobs laid out for them, and the half-trained, uninformed slackers who are not ready to meet the new conditions will be crowded aside with scant ceremony.

Alertness a Business Asset

The large gains, the conspicuous careers wrought out in our country in the past and to be attained in the future by the young executives of the day, have resulted or will result, from change in conditions, from the exploitation of new projects by men of intelligence and daring originality.

The average grade of ability under normal conditions will receive its conservative reward, but the executive not satisfied with that must needs cultivate something new and unusual; must take advantage of changes and new opportunities as they offer. Alertness to discover and seize opportunities at the right time constitutes a most valuable business asset.

A Dayton merchant, suffering from a nervous breakdown due to overwork and worry in attempting to keep tabs on the details of his retail store, noticed in the engine room of the ship which was taking him to Europe a device which recorded the number of revolutions of the propeller shaft. Hundreds of other passengers had observed the same device without any particular consequence, but in the mind of Jacob Ritty this question at once arose, "Why not construct a machine that will record each coin put in the till?" Hurrying home to Dayton, he set to work with his brother, a skilled mechanic, and evolved the first cash register.

The crude yet novel machine soon afterwards came to the attention of a second alert intellect, in the person of a small-town merchant whose store was located some distance from Ritty's tiny factory at Dayton. Impressed by the vast possibilities of the device, this John H. Patterson took over the patents and founded the now world-famous National Cash Register Company.

The thousands of visitors at the Centennial Exposition in 1876 considered the bicycle exhibited there merely a curiosity; Colonel Pope recognized in it the basis of a new industry and he returned to Hartford to enter upon his notable career as a manufacturer.

The changes which took place in the sulphur-cured india-rubber accidentally dropped by Charles Goodyear upon a stove, meant nothing to his good-natured friends; to Goodyear it was a revelation—the long-sought process of treating rubber gum.

The streets black with telephone wires were for years in plain sight of thousands, yet it remained for Theodore Vail to dream of wires underground and at Attleboro to begin his first experiments. That wires should be underground now appears obvious but persons fifty years from now will wonder why persons today overlooked so many things to them equally obvious.

Though they travel the same road together, men do not see the same things. As Russell Sage dryly remarked, "Some people never see opportunity in anything and they never get along." The explanation which these ne'er-do-wells often advance is that opportunity knocks but once upon each man's door and, should he prove unresponsive, passes along never to return; they, unfortunately, failed to recognize the presence, hence their present plight. Of the many absurd ideas which encumber the human mind this deserves high rank as the worst. Since business conditions are continually chang-

ing, the opportunity for an alert mind to seize upon enterprises at the psychological moment never is closed.

Pioneer versus Followers

The pioneer, with a mind alert to the significance of that which he sees, continually keeps tilling and harvesting in the most fertile fields, while the follower either contents himself with the former's once worked fields or, having once secured handsome returns in a certain venture, continues persistently in this same activity, oblivious of the fact that the field is worked out.

The profit-maker keeps his facilities always mobilized, ready to move in whatever direction gain calls.

Rockefeller's early success as a monopolist was founded upon railway rebates, but as soon as the independent refiners thought to best him by inducing a pipe line, he promptly eschewed railroads and the Standard was soon pumping oil to New York. Commodore Vanderbilt believed in sailing vessels, but after a time he saw the superiority of steam and turned to steamboats; and later, beginning to feel the effect of rail transportation, he sold his beautiful steamers and re-invested his money in the rusty iron rails and wheezy little locomotives of the competing railways. The Commodore was then an old man and his opinion of railroads prior thereto had been scarcely printable, but these things did not keep him from the profitable path.

The Power of Initiative

The profit maker is a cultivator of the new, a herald of things to come. The rapidity of his innovations outdistances competitors. Bankrupt railroads, overcapitalized factories, problematic inventions, or offerings of novelty shoes and spring hats he evaluates in terms of the future.

"We take pleasure in the success of everybody in busi-

ness," says John Wanamaker, "and even when instant duplication of our methods is attempted we hope that tomorrow we shall be as fresh as today, and shall be in the future as in the past attempting to do what has hitherto been unattempted."

The present is obvious, and as such is usually found to have been already exploited. Even a new plan, in its day considered highly original, assures no permanent hold; competitors abound and their advances gradually undermine the prosperity of any stationary concern. Only through initiative, the power to produce new ideas continually, is permanent advantage possible.

They copied all they could follow,
But they couldn't follow my mind;
And I left them sweating and stealing
A year and a half behind.

The Fresh Viewpoint

The new idea is a magnet drawing profits to its possessor. It attracts unto itself money, men, and materials; expresses its presence in unique designs, prompt deliveries, low costs and satisfactory service; and, the real soul of the organization, determines the onward career of office, store, or factory. The organization manned by creative thinkers is founded upon a rock.

The great value of *ideas* to men in business is coming to be more fully appreciated. The executives in the front ranks, in fact, are even now past the stage of discussion, and instead are intent upon the best methods of systematically cultivating new ideas.

An excellent first suggestion is offered by the history of inventions. The cotton-gin was the work not of a southern planter, as might have been expected, but of a Connecticut schoolmaster; the idea of the Jenney car coupler was evolved from the brain of an illiterate French-Canadian, who knew

more about brands of whiskey than railroads; the Bessemer process was formulated by a man who had no connection with the iron and steel trade, and knew little or nothing of metallurgy. "Persons wholly unconnected with a particular business," declared Bessemer in explaining how he had entered upon his career untrammelled by notions, "are the men who make all the great inventions of the age."

The outsider's fresh viewpoint accounts for this paradoxical fact. Men engaged in a particular business are, too commonly, mere diligent workers, plodders who perform their daily routine without a comprehensive system, without inventive or constructive ability—sterile workers who lack vision. These workers in a rut cannot see anything but the day's work ahead. In an executive position they are digging their business graves.

In order to seek out, attain and utilize the fresh viewpoint for himself, the executive must keep himself free from entangling masses of detail. Vacations, rest periods, and change of occupation keep a man fit and provide the conditions under which the development of new ideas is encouraged. In addition, he should by conference, by discussion and similar methods, get the opinions of others on his problems. An open-minded attitude at these conferences and elsewhere will yield a rich harvest. At times, it may be worth while to get in an auditor or efficiency expert to examine and report anything that may be wrong or lacking. If a new man is taken on, his impressions before he settles into the existing routine will often supply a valuable corrective.

The Raw Material of Ideas

It cannot be too strongly emphasized that the mind cannot shape up new ideas unless it is supplied with appropriate raw material. Corporation heads oftentimes complain that their junior executives are sterile, but they do not appreciate

the fact that the junior's mind, however eager, cannot produce if starved. The executive anxious to cultivate the power of initiative in himself and in those working under him, ought in justice to all concerned, to see that the necessary materials for thinking are provided. What are some of the sources of these raw materials?

A noted advertising man—advertising of all businesses being one which demands originality—clips every illustration which contains a figure, a pose, a layout, or an idea of any kind that he finds stimulating. Material of value can be found in the educational trip, the late books, the trade paper, the magazine article, the conference, the new friend. “When I get hold of a man who is versed in the Word of God,” said Moody, “I just pump him.”

John Jacob Astor gained from a loquacious immigrant the idea of that fur trade upon which his fortune was to be founded; James J. Hill, a shipping clerk at St. Paul, drew from the journals of Lewis and Clark and Irving's “Astoria” the materials which fired his imagination to be empire builder of the northwest; George Pullman, forced one night to lie awake as the bunk car in which he rode jolted along from Buffalo to Westfield, gained the experience which was to bring about a new sleeping car.

The Search for Business Ideas

In modern factory and office practice, suggestion box, questionnaire, and call to conference, are among the means employed in securing new ideas or new applications of old ideas.

Early in his railroading career young Cassatt, late president of the Pennsylvania system, made it his business to be the most approachable of division superintendents. No man was ever more sought after by cranks and geniuses alike, with their models of automatic couplers, sleeping cars, tank-

ing and signaling systems, than was Cassatt. He was willing to seek through chaff to find wheat. He made it a rule, moreover, to be even more accessible to his own petty employees. Brakemen, switch tenders, trackmen, all found the door to his private office open, and their practical suggestions enabled many an innovation to reach its highest value.

"Bringing this down to actual factory management," says Superintendent Field of the Illinois Steel Company, "we try to get this feeling into our men by always stimulating the initiative in them. We are ready to pay the cost of anything that any of our men makes in our line and then the patent belongs to him, we having the shop rights and he having the right to sell the patent or to receive royalty from its use anywhere else he chooses." Some executives have carried this plan so far that the thought atmosphere of the establishment has been transformed. All become co-operators in the development of new ideas.

Imagination, a Quality of Empire Builders

The supply of materials, however necessary, constitutes but the preliminary step in the development of a new idea. The crude materials, though nuggets in the rough, are to be re-fashioned under the impress of the imagination. It is true that business men have too often regarded the imagination as a faculty required only by poets, novelists, musicians, and painters. Thinking of it merely in terms of the bizarre flights of fancy that sometimes steal upon one in reverie or in sleep after eating overmuch, it is not strange that they have considered "imaginative" synonymous with "impractical," and their greatest dread has been to be called visionary.

Not so with great leaders. The men who have made their lasting impress upon industry—empire builders such as Cecil Rhodes and James J. Hill, creators of new products like Cyrus McCormick and George Westinghouse, financial organ-

izers like J. Pierpont Morgan, founders of famous enterprises such as George Pullman, Andrew Carnegie, and George Eastman—have in every case possessed power of imagination. They saw more than other men saw. The vast expanses of territory left unoccupied, the neglected mineral deposits, the small struggling organizations with inadequate capital, or the poor and inefficient plant equipment at which these men gazed were, by the intensity of their creative imagination, transformed into those greater things to be. The solid realities which later appeared listed upon the balance sheets represented the materialization only of those mental pictures which shaped themselves before their constructive minds.

Development of New Ideas

The imagination creates and develops, not merely reproducing the raw materials with which the mental shelves have been stored. Its creations are often as different from the original materials as are crude metals and finished time-pieces, or raw cocoons and dainty silken garments. This process of mental elaboration, the manufacture of new thought products, well deserves the serious interest of an executive. He cannot safely be too busy to think.

A certain stockholder of the Standard Oil Company—so runs a story told by a president of the Illinois Manufacturers' Association—was much annoyed upon glancing from his office window to the offices of the oil company across the way to observe one of its department managers day after day standing with his hands in his pockets, gazing out into the street for the greater part of his time.

"Here is a man who draws a five-figure salary," thought the stockholder, "who is loafing on the job." In the end, feeling it his duty to do so, since he was a stockholder and certain his efforts would be appreciated, he communicated the matter to the Standard's acting head.

"Mr. Jones," the acting head of the company addressed the stockholder with a smile, "I sincerely thank you for the interest you have shown in the maintenance of our efficiency. I appreciate the fact that, from your window, Mr. Smith appears every bit as idle as you say.

"But from your window it is impossible for you to see what is going on inside of Mr. Smith's head. My experience with Mr. Smith has been such that I know it would be highly profitable to this company to hire a dozen other similar Smiths if we could get them—pay them similarly large salaries to stand with their hands in their pockets, looking out of their windows—thinking thoughts as valuable as those which Mr. Smith thinks and crystallizes."

Thought as a Business Force

The reply of the acting head was both good business and good psychology. The great storehouse of impressions, however received, is the subconscious. Within its mystic chambers are packed all our yesterdays. In the rearranging of these subconscious thought materials lies the possibility of a new and effective combination, the bringing forth of original conceptions. This usually is the fruit of musing and solitude. The brilliant schemes of Cecil Rhodes were in the main developed during morning rides over the mountains in South Africa. Riding alone across the deserted slopes, with the stupendous works of nature frowning down upon him, Rhodes was able to commune with himself in peace. He recognized what many a harassed executive has not yet grasped, the supreme value of an idea well matured.

The brilliant minds which for centuries found in philosophy, literature, or science the intellectual element they craved are to be from now on in steadily increasing numbers attracted by the business career. For business does afford scope for the fertile intellect, and the view, long current, that the busi-

ness man was merely a diligent worker who at best plodded through the day's routine without a comprehensive system, with neither imagination nor a constructive mind, must accordingly give way to the conception of the executive as creative thinker.

The drudge may fret and tinker,
Or labor with lusty blows,
But back of him stands the thinker,
The clear-eyed man who knows.
Might of the roaring boiler,
Force of the engine's thrust,
Strength of the sweating toiler,
Greatly in thee we trust.
But back of them stands the schemer,
The thinker who drives things through,
Back of the job—the dreamer,
Who's making the dream come true.
—BERTON BRALEY.

EXERCISES

Intelligent Observation

The efficient man by no means goes about open-eyed, staring at everything, but he does observe, and observe intently, the things that concern him.

The way profits are made in your particular field vitally concerns you. In working through the exercise which follows, you will secure some good suggestions and improve your power to observe in places where observation is well worth your while.

List on Chart 12 twenty instances in which profits appealing to you as entirely satisfactory were made. Confine this list of course to your own vocation. In compiling it you may consult daily papers, trade papers, your associates, or any other source of information applicable in your particular occupation, and the full list need not be secured at once. Simply keep alert to how profits *are being made* in your field and the list after a time will be completed. Do not fill out the third column until after the list of specific instances has been compiled, since its purpose is to yield you certain general principles illustrated in the concrete instances.

Keeping the Mind Alert and Active

1. Are you careful to see that your mind is in the main stream of ideas, where it can be continually stimulated?

"When I want to discover something," says Thomas A. Edison, "I begin by reading up everything that has been done along that line in the past. I see what has been accomplished at great labor and expense in the past. I gather the data of many thousands of experiments as a starting point, and then I make thousands more."

In other words, Mr. Edison in evolving those new projects which have made him world-famous as an inventor nourishes his mind in the accumulated experience of other men. He does not go it alone, a hermit shut away in some remote cave.

2. Are you open-minded, ready to receive a good idea from whatever source it may come?

"There is a principle which is a bar against information, which is proof against all arguments, and which cannot fail to keep a man in everlasting ignorance," says Herbert Spencer; "this principle is contempt prior to examination."

3. Do you talk with men who stimulate you?

The ideas upon which John Jacob Astor laid the foundations of his great fortune were gained from an American furrier with whom as an immigrant he talked on shipboard.

The young executive will find talking with bigger men than he a continual stimulus and source of inspiration. Join a trade club or engineers' club where men of affairs gather—be a good listener and a pertinent questioner. Absorb ideas relating to your job and never miss an opportunity to study and understand the men higher up in your own concern.

4. Do you read the trade papers—and books?

The story of Astor's career as written in Irving's "Astoria" fired the imagination of a steamship clerk, James J. Hill, and the boundless stretch of fertile and untilled land in the northwest became his life theme.

5. Do you use an idea file?

The philosopher Hobbes took his own intellectual processes with all seriousness. "He walked much," says his friend Aubrey, "and contemplated and he had in the head of his staffe a pen and inke horne, carried always a note-book in his pocket, and as soon as a thought darted, he presently entered it into his book, or otherwise he might perhaps have lost it."

President Patterson of the National Cash Register Company is in this respect a worthy follower of Hobbes. His brain works day and night—and he sees to it that its ideas do not escape him. Even at his bedside he has a pencil and pad to which he commits ideas the instant they enter his head. Every morning he dictates to a secretary dozens of orders to be transmitted to the various heads of departments.

“All the great orators of the world have planned out their creation to the smallest details,” says Clarence M. Woolley, President of the American Radiator Company, “all great achievements have first existed in the mind of some man.” One of these great achievements may germinate within your mind today. Welcome it. Jot it down, dictate it in a memo to yourself, file it; by all means do not let that idea escape for it is stuff out of which profits are made.

6. Do you meditate upon what you have heard and read?
Each person is unique, with a life purpose all his own; and an

TWENTY SPECIFIC INSTANCES	IN EACH CASE THE PROFIT WAS MADE AS FOLLOWS	THESE VARIOUS WAYS FOR MAKING PROFITS REDUCE THEMSELVESTO

Test Chart 12. How Profits are Being Made in My Field

idea from outside is not really his and ready to meet his needs until it has passed through the crucible of his own thought. Meditation accomplishes this. Such meditation is purposeful, not the mere wondering about what may happen, over which so much time is consumed. "Our most useful cogitations are not pure reveries, absolute driftings," says James, "but revolve about some central interest or topic to which most of the images are relevant, and toward which we return promptly after occasional digressions." This constitutes fruitful thinking.

7. Are you giving to creative work the time it justly deserves?

Ideas are intangible, and in an age of machinery and materialism their significance is, no doubt, obscured. Yet ideas are true assets, the real basis of profit, and they can be produced systematically.

These questions open the way to profits with a realness which unless you fill out Test Chart 12 you cannot appreciate.

This exercise provides you certain general principles and concrete suggestions which will increase your own profit-making power. Does it not convince you that conspicuous gains are associated with new enterprises and new methods?

CHAPTER XII

THE FEASIBLE PROJECT

It is surprising how many bright business men go into important undertakings with little or no study of the controlling conditions they risk their all upon.—JOHN D. ROCKEFELLER.

The Commercial Instinct

The man of creative ability, the possessor of initiative and vision as these qualities have been discussed in the preceding chapter, runs the risk of becoming so captivated by the ideas which flash through his brain that he develops nothing systematically. A creature of enthusiasm, he perhaps lacks practical sense and, in the more pronounced cases, while in want himself, sees the fruits of his inventions enrich the more prosaic but better balanced men by whom these inventions were commercialized.

Such a man was Charles Goodyear, an inventor who believed in the then useless india-rubber as a saint believes in heaven. His friends regarded him as a monomaniac. In spite of poverty, family sickness, loss of friends, ridicule, and a series of disastrous experiments, he kept on for years testing different methods of manufacture, even dressing himself in clothes made of his samples in the hope of proving its durability and of securing some advertising. He was certainly an odd figure and in his appearance quite justified the remark of one of his friends who, upon being asked how Mr. Goodyear could be recognized, replied: "If you see a man with an india-rubber coat on, india-rubber shoes, an india-rubber cap, and in his pocket an india-rubber purse, with not a cent in it, that is Goodyear."

After having firmly established the merits of india-rubber, he was still too thoroughly an inventor and too little the man of business to protect himself from schemers who plundered him of the profits of his invention. The United States Commissioner of Patents, in 1858, thus spoke of his losses:

"No inventor, probably, has ever been so harassed, so trampled upon, so plundered by that sordid and licentious class of infringers known in the parlance of the world, with no exaggeration of phrase, as 'pirates.' The spoliation of their incessant guerrilla warfare upon his defenceless rights has, unquestionably, amounted to millions."

Notwithstanding the epoch-making character of his invention, which brought millions to others, Goodyear himself died insolvent and left his family heavily in debt.

The long career of Thomas A. Edison, on the other hand, so richly and variously productive, is evidence of what can be achieved when originality is directed by the sense of what is practical. An experience of his suggests the value of the early "hard knock" which earnest men have so frequently turned to good account.

Mr. Edison's first invention was a device for registering votes promptly and automatically; each legislator had only to press a button and in a flash the final result "Aye" and "No" was set forth. The proud young inventor demonstrated the machine before a committee of the National House, in the full expectation that its merit would at once be appreciated.

An experienced legislator with two sentences dismissed the device over which the young man had toiled for months: "Young man, if there is any invention on earth that we don't want down here, it is this. One of the biggest weapons in the hands of a minority to prevent bad legislation is filibustering on votes, and this instrument would prevent it."

The idea was unique, but not wanted.

Edison and Commercial Availability

A man less shrewd might have raved against "the unappreciative public," but not Edison. On the contrary, he made the decision upon which his later remarkable achievements in large measure depend, viz., his inventive faculties henceforth were to be devoted only to things for which there was a genuine demand.

"The point in which I am different from most inventors," said Mr. Edison not long since, "is that I have, besides the usual inventor's make-up, the bump of practicality as a sort of appendix, the sense of the business or money value of an invention. Oh, no, I didn't have it naturally. It was pounded into me by some pretty hard knocks. Most inventors who have an idea never stop to think whether their invention will be salable when they get it made. Unless a man has plenty of money to throw away, he will find that making inventions is about the costliest amusement he can find. Commercial availability is the first thing to consider."

Reflection Performs an Essential Service

Success in the conduct of business requires sound, cautious judgment. No man can get on, of course, without alertness of mind, the power to think of things to do. But there is no man who can carry the responsibility of building a business, or directing the work of other men unless he has a shrewd sense of what it is safe, wise, and profitable to do.

The man of phenomenal creative power, therefore, requires an extremely heavy balance wheel. Such a balance wheel, the machine of analysis and trained judgment, is reflection. Under its control the native impulse to act upon whatever idea may have captivated the mind is to some extent checked and thrown back upon itself. Selective thinking ensues; in consequence of its searching tests numberless ideas of inferior

worth are sternly subordinated or weeded entirely from the mind so that the most practical may hold sway.

Andrew Carnegie on Business Judgment

The business man might of course put all his ideas into operation as they were first conceived and try them out by the test of actual experience. Experience, though valuable, is proverbially a dear teacher, and her charge ought to be anticipated rather than recklessly incurred in testing impracticable ideas. Such ideas can no more produce profits than figs can grow upon thistles. Their ultimate end is disaster, and the chief purpose of reflection is to restrict such disaster to the mental world; to have done there with impractical ideas, rather than have them externalized as costly mistakes in brick and mortar, steel girders or long-term contracts.

"Those who fail may say that this or that man had great advantages, the fates were propitious, the conditions were favorable to him. Now, there is very little in this," declares Andrew Carnegie; "one man lands in the middle of a stream which he tries to jump, and is swept away, and another tries the same feat, and lands upon the other side.

"Examine these two men.

"You will find that the one who failed, lacked judgment; he had not trained himself; could not jump; he took the chances. He was like the young lady who was asked if she could play the violin; she said she 'did not know, she had never tried.' Now, the other man who jumped the stream had carefully trained himself; he knew about how far he could jump, and there was one thing 'dead sure' with him. He knew he could, at any rate, jump and try again. He had shown judgment."

Because among the numerous projects available it selects those most likely to succeed, reflection constitutes a wonderful short-cut to results.

The "Sure Thing" Delusion

The selection of projects *most likely* to succeed, while essential, does not satisfy the cupidity of the simple-minded expecting the discovery of a highly profitable "sure thing." These persons are beset by a vain delusion. Changing conditions in business, as every man who makes money sooner or later comes to recognize, while they provide the profit-seeker with opportunity, afford him no real guarantee that his ventures will prove successful. Should he take hold, he incurs risk.

Since prices do fluctuate, what is easier than to buy low and sell high, and thereby reap a fortune? Nothing, so runs the amateur's opinion. And he has no difficulty in pointing out what would have been had he dealt in wheat or copper or stocks. In actual practice, price changes prove difficult to forecast and have entailed disaster incessantly to the unskilled operator.

Inventions have brought wealth to their respective inventors in only a very small percentage of cases, while millions of dollars are squandered in the promotion of devices which are complete failures from the business standpoint. Neither do improved methods of production represent certain gain, since continual outlays for experiment and installation are involved and competition is thereby sharpened. Nor does the exploitation of natural resources guarantee gain with no possibility of loss. In the more highly speculative ventures, such as gold-mining, it is questionable if more wealth has not been wasted in non-paying mines than has been secured from rich strikes.

The Risks of Business

In short, whatever be the source of profits utilized, risk characterizes every business enterprise. "It is often a heart-breaking undertaking," observes John D. Rockefeller, "to

convince men that the perfect occasion which would lead to the perfect opportunity would never come even if they waited until the crack o' doom." The wise executive recognizes risk as a factor which can never be avoided and, instead of deceiving himself with the idea of a "sure thing," he accepts each venture as a chance whose hazard is to be guarded against and reduced by deliberate, systematic thought.

The existence of risk means nothing more than that certain essential factors are shrouded in uncertainty. Its systematic reduction calls for a mind able to carve its way into this maze and lay bare the factors at issue.

This power and the habit of analysis was developed to a high degree in Abraham Lincoln and its possession was undoubtedly the chief cause of his astonishing advancement.

His mind (we are told by W. H. Herndon, who was for many years Lincoln's law partner) ran back behind facts, principles, and all things to their origin and first cause to that point where forces act at once as effect and cause. He would stop in the street and analyze a machine. Clocks, omnibuses, languages, paddle-wheels, and idioms never escaped his observation and analysis. Before he could form an idea of anything, before he would express his opinion on a subject, he must know its origin and history in substance and quality, in magnitude and gravity. He must know it inside and outside, upside and downside. He was remorseless in his analysis of facts and principles. When all these exhaustive processes had been gone through with he could form an idea and express it; but no sooner. He had no faith in, and no respect for, say-so's, come though they might from tradition or authority. Thus everything had to run through the crucible, and be tested by the fires of his analytic mind; and when at last he did speak, his utterances rang out with the clear and keen ring of gold upon the counters of the understanding.

The Problem-Solving Type of Mind

This power which Lincoln cultivated so zealously of thinking things out thoroughly, the average man perhaps

envies, yet seldom will he subject himself to the discipline required for making it his own. Although popularly termed thinking animals, hardly any of us really like to think; whenever possible we all dodge the task. Nevertheless, the guidance of the large-scale modern enterprise raises problems which only persistent thought can solve and it is to be noticed that the executives who under the new régime advance themselves into captaincies of industry have not dodged the task. These men in business exhibit the same problem-solving type of mind as did Lincoln in politics.

In his thirst for information, E. H. Harriman dug deep into the inner workings of his railroads, studied rates, towns, territories, bridges, locomotives, rails, ties, and men. Charles Mellen, when unexpectedly appointed railroad superintendent, proceeded to make his home in the switchyards, baggage cars, and roundhouses, counseling with switchmen, trainmen, engineers, firemen, and roundhouse foremen, and in general putting in eighteen to twenty hours' intensive study daily. So insatiable in analyzing the Great Northern's prospects was James J. Hill that his knowledge of its territory became almost that of a stage-driver. While other men were regarding the idea of a transcontinental railroad as entirely chimerical, Collis P. Huntington proposed that a definite survey be made, and supplied a large portion of the funds required. When Grover Cleveland accepted the trusteeship of the reorganized Equitable Life Assurance Society he studied the matter in his thorough, painstaking way until, as one of the young life insurance presidents used to say, "the old man knew more about insurance than any of us." Convinced years ago that science was to play an important rôle in steel-making, Charles Schwab says: "In my own house I rigged up a laboratory and studied chemistry in the evenings, determined that there should be nothing in the manufacture of steel that I would not know. Although I had received no technical education,

I made myself master of chemistry and of the laboratory, which proved of lasting value."

The Mastery of a Business

These men all possessed the problem-solving type of mind which, early utilized in dealing with small matters, enables the business man to move with firm confidence in large affairs. For the vagueness in which these large enterprises at first appear enshrouded disappears upon analysis and there is revealed instead a number of questions so specific that the mind cannot fail in due time to assert its mastery over them.

"Forty years ago I was impressed with the value of analysis in business," says John H. Hanan, the Brooklyn manufacturer, "and that hour was the beginning of whatever success I have had."

The outstanding fact about the problem-solving mind is that it is invariably the result of a considerable period of training and practice. A man can not develop a sound judgment overnight, but he can in time develop it through solving the actual problems of the small place, the limited job. The subordinate position, in consequence, is not only a perfectly adequate place to learn to handle the big enterprises; it is practically the only place.

Getting at the Essentials

Each problem the executive is called upon to solve constitutes a little world in itself within whose labyrinths the reflecting mind could stay interminably—running over the numberless phases of the question at issue, seeking out fresh points of view, developing whole crops of new suggestions, guessing, and comparing. The true executive invariably cuts short this Hamlet-like process. With him the selection and survival of fit thoughts, the elimination of the unfit, is vigorously attended to; he thinks with a purpose.

The following incident, chosen from many of its kind, in the career of Thomas A. Edison well illustrates positive thought in operation. On this occasion Mr. Edison had decided to study a certain part of the mechanism of typewriters.

"Have a model here next Tuesday of every typewriter made," he said to one of his assistants. "Have each company send an expert to explain its machine. And get me out all the books in the library about this piece of mechanism."

Monday evening the assistant called Mr. Edison's attention to a stack of books several feet high, and reminded him of the appointment next day.

"Send the books up to the house. I'll look them over tonight," said Mr. Edison.

The next morning he appeared at the exhibition, and so thoroughly had he read the books that he frequently corrected the experts' explanation of how their own machines worked. The assistant, out of curiosity, tried reading the references that Mr. Edison had absorbed in one evening, and it took all his spare hours for eleven days.

Mr. Edison in his swift pace had cut straight to the mark. This method is characteristic of men who do things; they push directly along the great highways of thought.

Keeping the Right Road

In the business world, which to the beginner seems a maze and which is sufficiently complex even to the officials of great and successful corporations, the importance of distinguishing essentials from non-essentials increases year by year. The ability to manage a business demands the application to its problems of the same habits of thought which in the physical and natural sciences have again and again demonstrated their effectiveness. In other words, the business men advancing to the helm of affairs in this country must be scientists—not that they must work in laboratories, but that

they must apply the method common to all branches of learning, the procedure of a logically trained mind.

Amid phenomena mingled in endless diversity, as we find it in business, science has for its aim the discovery of true relationships. Order and system normally follow in its train however diverse may be the field, since the scientific mind, immersed as it may be in apparently heterogeneous details, is alert in detecting similarities and differences, in weighing the evidence for and against any idea or statement which may present itself. Those items which are not essential in a given case are eliminated and those which are actually of importance are revealed.

In this process the scientific mind is first of all ever on its guard against weaknesses within itself: indolence, prejudice, fear of looking unpleasant facts in the face. All these are errors to which human nature in every age is subject. "Men believe easily what they wish to believe," said the greatest man of the greatest empire of antiquity, Julius Caesar.

Lord Bacon's Warning

Centuries afterward Lord Bacon elaborated the warning in his "Novum Organum."

The human understanding, when any proposition has been once laid down (either from general admission and belief, or from the pleasure it affords), forces everything else to add fresh support and confirmation; and although most cogent and abundant instances may exist to the contrary, yet it either does not observe or despises them, or gets rid of and rejects them by some distinction, with violent and injurious prejudice, rather than sacrifice the authority of its first conclusions. It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than negatives, whereas it ought duly and regularly to be impartial; nay, in establishing any true axiom the negative instance is the more powerful.

The human understanding resembles not a dry light, but admits a tincture of the will and passions, which generate

their own system accordingly; for man always believes more readily that which he prefers. He, therefore, rejects difficulties for want of patience in investigation; sobriety, because it limits his hope; the depths of nature, from superstition; the light of experiment, from arrogance and pride, lest his mind should appear to be occupied with common and varying objects; paradoxes, from a fear of the opinion of the vulgar; in short, his feelings imbue and corrupt his understanding in innumerable and sometimes imperceptible ways.

The Danger of Deceiving Oneself

The danger so impressively pointed out here is real. The inevitable consequence, should one not take the proper steps to avoid it, is the appearance of that most serious of all defects in the otherwise practical man—self-deception.

“When a man’s affairs are not going well, he hates to study the books and face the truth,” says Mr. Rockefeller in explaining his procedure. “From the first, the men who managed the Standard Oil Company kept their books intelligently as well as correctly. We knew how much we made and where we gained or lost. At least, we tried not to deceive ourselves.”

“Things and actions are what they are, and the consequences of them will be what they will be; why then should we desire to be deceived?” asks Bishop Butler. The victim of this ostrich-like ignoring of the facts is able to make no satisfactory reply to the Bishop.

We as business men must recognize the warping effects upon the judgment both of prejudice and of prepossessions, must seek to retain the open-mindedness with which as children we were endowed, and yet, in fulfillment of the responsibilities resting upon us, must investigate systematically and without ceasing each problem which is ours to solve.

“Separate the problem from yourself; think of it as a fascinating episode that happened years ago,” is the advice

of Dean Gay of the Harvard School of Business Administration.

Procedure at the General Electric Plant

When the problem-solving type of mind faces some new problem, what, in general, is its method of operation? The answer to this question, in terms familiar to the business man, appears clearly in this incident which took place in the shops of the General Electric Company. The manager of one of the departments had observed the need for a new type of circuit breaker, as the breaker then in use—an electrical switch consisting of a handle and three copper prongs fitting into grooves—was not satisfactory. His procedure according to the account in *World's Work* was thus:

At eleven o'clock an idea occurred to him and by two in the morning he had worked out three definite forms.

The next morning, he called in one of his assistants, explained his third form to him, and told him not to report at the works again until he had made the sketches that would put it in shape to be explained to the management. Two days later the assistant brought in the sketches. The two men discussed them. Changes had to be made. Two more trials were necessary before the sketches were in shape to show to the technical director of the works.

Then the invention went through these steps; a conference with the sales department to determine at what price the device must be sold to be successful; an appropriation to cover the development of the device (working drawings and models); the making of an original set of working drawings; discussion of the drawings by the management and their approval; the making of a model by the model shop; another conference on objections from the sales department to the form of the device; tests of the model for practical work; the correction of the defects shown by the model in practice; the correction of the drawings to correspond to the revised model; the designing of models of the device in different sizes; an appropriation for the manufacturing of the device in lots of 100 for general sale; the drawing up and filing of an application for a patent; the giving of instructions how to build it, from the engineering de-

partment to the factory; the inventing and building of the machinery necessary to manufacture the device in large lots; and a test of the first product.

From the manager's idea to the completion of the first commercial sample took six months; and from the completion of the sample to the time when the device was being manufactured in all sizes as a commercial product, took two months more. To perfect the invention and carry it to the point where the first lots were put on sale, cost the company \$4,000.

The Systematic Elimination of Risk

The problem-solving type of mind faced with a newly created problem in general concerns itself with:

1. Analysis; what are the factors at issue?
2. Evidence; what are the facts involved?
3. Experience; what results are shown in practice?

These three processes—analysis, the use of evidence, and the test of practice—as evolvers of the practical idea proceed together, inextricably interwoven. Their combined effect is the systematic elimination of risk.

How far shall the elimination of risk be pursued in the case of those stirring new projects proffered us more or less continually by the creative impulse? Since even to the most conservative, who in consequence must be satisfied with the smallest of returns, the proposition 100 per cent certain continues to exist as an ideal unrealized, the business man does not hesitate to accept a certain degree of risk. His aim is simply the reduction of risk until, in proportion to the chances for profit, it becomes reasonable; and the use of his problem-solving machinery beyond that point represents unprofitable expenditure.

"The trained mind," as Professor Dewey points out, "is the one that best grasps the degree of observation, forming of ideas, reasoning, and experimental testing required in any

special case, and that profits the most, in future thinking, by mistakes made in the past."

Superior Reasoning Ability in Practice

Let us assume that the financing of three industrial enterprises, the propositions similar in all essential respects, is laid before bankers A, B, and C respectively. Under ideal conditions the investigation required would cost \$20,000; A, whose problem-solving machinery works at an efficiency of 90 per cent, spends \$22,222, whereas B, whose similar efficiency is 80 per cent, requires \$25,000, and C, whose rating is but 50 per cent, needs \$40,000. In comparison with A, B is handicapped \$2,222 and C \$17,778. Or on the other hand, supposing that the three expend the same amounts, B and C will still be handicapped in that they will be assuming more serious risks than A.

The problem-solving type of mind, because of the superior effectiveness with which it operates in this respect as compared with the average intelligence, secures its possessor equal risk at less cost in time and effort or less risk at equal cost.

EXERCISES

First Ideas

Ideas for the making of profits are continually occurring to you. Our exercise concerns these. Make a list of the first ten such ideas as they come to your mind entering them upon Test Chart 13. Do not examine them critically; in fact, do not examine them at all, but simply make a note of each in order as they appear until ten have been collected. Next put each through the tests outlined in this chapter.

In their original form, do your ideas possess high or low chances of winning you the profits desired?

The Sifting of Ideas

Men will differ in the percentages shown, the imaginative mind which tumbles out projects ceaselessly showing naturally a higher

mortality rate in its ideas than the slower, more methodical thinker. What does this exercise reveal to you regarding the relative importance for profit making of original ideas and the means for

VENTURE AS FIRST CONCEIVED	MODIFICATIONS I SUBSEQUENTLY MADE IN IDEA	TOTAL PROFITS SECURED	OF PROFITS ORIGINAL IDEA CONTRIB- UTED THIS PERCENTAGE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
AVERAGE PER CENT DUE TO ORIGINAL IDEA.....%			

Test Chart 13. History of Ten Ventures

rendering them practical? Does your strength lie primarily in initiative or in judgment?

Practical ideas, we may conclude, are those fitted to survive the struggle for existence which takes place among the ideas evolved within the mind. They represent at all times the result of a more or less persistent, oftentimes laborious and painful, process of selection. This is necessarily so.

"Roasted pigeons don't fly into one's mouth," is the way Daniel Guggenheim, President of the American Smelting and Refining Company, puts it. "You have to find a pigeon, you have to be able to shoot him, then you must clean him and roast him before you can eat him. So it is with business."

The severe death rate which prevails among the products of our creative impulse is by no means peculiar to executives but holds true

of all men producing ideas at once *original* and *practical*. The business man loath to train his problem-solving apparatus upon some idea with which he for the time being is captivated, may ponder with profit, therefore, the words of the famous scientist Michael Faraday:

"The world little knows how many of the thoughts and theories which have passed through the mind of a scientific investigator, have been crushed in silence and secrecy by his own severe criticism and adverse examination; that in the most successful instances not a tenth of the suggestions, the hopes, the wishes, the preliminary conclusions have been realized."

CHAPTER XIII

TESTS OF REASONING

We must not then add wings but rather lead and ballast to the understanding, to prevent its jumping and flying.—SIR FRANCIS BACON.

Exact Knowledge Needed

“Modern scientific management,” says Vice-President Peck of the Link Belt Company, “is exactly what the name implies—management based on knowledge—on ascertained facts rather than on opinions, however brilliant, of workman, foreman, superintendent, or manager.” The last word has the significance. The wise executive, while relying ultimately on his own judgment, checks up his own opinion by the opinions of others who approach the problem from different angles. But more than opinion he seeks information, definite and clear statements of observed facts bearing on the case in hand.

Sources of Information

Where is such information to be derived? Where not? Reports of every description come to hand, from within the organization and from outside. Information comes through visits of inspection and investigation; through conferences both official and informal; through correspondence, official and personal; through reading of trade papers, government publications, and books.

The range of persons concerned in providing information for the executive is equally great. It includes his fellow officers. It includes his subordinates of all ranks, who are perhaps nearest to actual conditions. Then there are the official investigators and examiners—the auditor, the field

investigators, the lengthening list of specialists: statisticians, chemists, cost experts, etc. Finally, in the case of most shrewd and successful executives, there are counselors on the outside whom he calls in when necessary.

Testing the Evidence

The information which these several sources focus upon the executive's desk varies widely in value. Part of it is truth itself, part the beliefs of misguided yet sincere persons, part the work of deliberate falsifiers. The testimony must be subjected to searching criticism before final acceptance.

Criticism, analysis, is the necessary complement of imagination. Imagination sees the whole in the part—the finished work in the specimen. It says: What I have seen leads me to believe that the whole enterprise (or article) will be valuable, sound, profitable, etc., providing the portions yet to be filled in are up to certain standards of execution, etc. Analysis makes sure that the parts are all filled in and that they are up to specifications. It takes an inventory. It cross-examines the new plan. It goes over every item of the proposition and tests it out sternly, making no allowances, assuming—in order to be safe—that what is not present perhaps is wrong, unfavorable, hostile.

How can we test our ideas, test that deliberately controlled sequence of ideas which we call thinking? Chiefly by going over the steps of the process to see whether we have made mistakes. This is the method which all of us use. The scientist does the same things as the untrained man, only more carefully and systematically. The untrained man rarely takes a trial balance of the evidence for and against a certain view. He assumes as a matter of course that his mental processes are accurate and sufficient and acts accordingly, whereas the scientist tests his thought constantly, making sure of every step he takes.

Systematic and Accurate Procedure

When the untrained man does test his thought, moreover, he is apt to do it unsystematically, whereas the scientist is careful to use orderly, even procedure. Knowing the proneness of the mind to jump the track, the scientist observes strictly the rules of the game while analyzing; he is careful to pin down each idea in a set place and order.

But the most important difference is this—the scientist strikes for essentials and thereby makes his analysis at once swifter and more accurate.

Analysis, criticism, is not mere faultfinding. Mere faultfinders are often among the most easily deceived; they do not know where the weak spots are. When the Twentieth Century stops at junction points in its wonderful run, trainmen with torch and hammer go along tapping wheels and axles, here and there. It is quickly done—just a light tap at a certain point. Untrained men, merely because they do not know the critical points where the strain comes, might tap all over the wheel yet miss the weak spot.

Analysis for the Executive

The system of analysis or critical method which the man in an executive position is to use, if it is to secure him superior results, should have three characteristics:

1. It should be reliable and accurate.
2. It should be generally applicable to all sorts of ideas, problems, etc.
3. It should be simple and quick.

The man in an executive position is obliged to decide many different kinds of questions. In most cases he cannot pretend to expert knowledge, since knowledge in any line comes only after long, specialized study and experience. He has all kinds of problems put up to him by his subordinates, all of whom

are individuals with divergent information and different viewpoints. It is necessary, unless the business is to slump or the tenure of his job is to be terminated, for him to give substantially the right answer to question after question.

The executive faced with these various problems never forgets also that he is in charge of a going concern, which means that decisions must be prompt. He is in a very different position from that of the scientist in his laboratory, or the judge in a court of law. The judge, for instance, has practically all the time he wishes, and he has at hand a carefully selected and classified array of the opinions of other judges on this point.

The executive needs, in order to make headway, a reliable working apparatus for testing ideas, proposals, and methods. If the plan passes this scrutiny, and if it is important in any way, it may then be tested more deliberately by the persons of special knowledge who are familiar with the case.

What Does the Idea Mean?

The first step in testing an idea, method, or proposal, is to see what it *means*. Express it in terms of your habitual activity so that you are sure of just what is implied by every part of it.

This would seem a matter of course, and yet hardly any step is more neglected in common life. The lawyer scrutinizes at once the language of the statute, or the contract on which his case depends. The chemist proceeds at once to an analysis of elements in the specimen placed in his hands. But the "busy" executive often jumps at the meaning of a proposal without translating it with any definiteness into the terms of his actual business life. A large proportion of the difficulties and misunderstandings which the executive has to adjust come from neglect on someone's part to grasp the exact significance of a proposal, or order, or explanation. It is as if a purchasing agent were to order goods on every

requisition placed in his hands without troubling himself to see whether they are already in the stores department. The fact is that many proposals, improved methods, etc., reveal their futility at once when we grasp their plain meaning.

The psychologists call this part of the testing process "definition of terms." The phrase is useful if we keep in mind that we are concerned here not with words but with ideas. Lincoln was particularly good at this, and it contributed largely to his success. A man who sees clearly the object which is held before his eyes knows at once, in most cases, whether or not he likes it. So when a person comprehends what a proposed business plan implies he can generally decide at once whether it is worth investigating. Time and care spent at this point will invariably save time and effort later on. Furthermore, it is the necessary basis for other tests.

When the Government's coal order came in the winter of 1918, stopping work on Mondays, the suggestion was made to lengthen the working day for the rest of the week to an equivalent extent. The office manager had to consider various items before he understood the meaning of that proposal. It would involve altered arrangements for light and heat, janitor and elevator service, and the making of new shipping and mailing schedules, etc. It would involve also the difficulties, real and fancied, which employees might have in adjusting themselves to the changed hours. When he knew what the proposal really meant, for his business, he was prepared to consider its value.

Competence of the Witness

Once we know what an idea means the next question is usually: Who brings it up? Merchandising plans suggested by the advertising manager of Wanamaker's will arrest the attention of any merchant. The fact that a plan brings an introduction from a good source does not prove that we

should accept it, but it is warrant for admitting it to the waiting room for closer scrutiny.

In estimating the credibility of a witness we consider mainly:

1. *His General Intelligence and Standing.* A matter brought up by a trusted official of the company has the presumption of an attentive and favorable hearing—so with one brought up by an old customer in good standing, or the representative of a well-known firm, even though there have been no previous dealings with him.

2. *His Knowledge of the Particular Case in Hand.* The opinion of an expert on his specialty—of the head bookkeeper regarding ledger systems, the janitor regarding ventilation, cleaning, etc., the clerks in the mailing department regarding stamping or letter-opening machines—merits always careful consideration.

3. *His Freedom from Bias.* This is a necessary check on the preceding test; the expert is usually more or less swayed by prejudice regarding his specialty. One who is “on record” with regard to a particular matter is not often entirely open-minded in his attitude.

4. *His Honesty; How Far He is Swayed by Self-Interest.* This test is constantly in use by the man in an executive position. Most of the proposals of all sorts which come before him are some way bound up with intentions of profit for someone. He must decide how far the statement or the conduct of a person concerned is to be taken as sincere; to be relied on. Often the expert, of even high intelligence, must lie under suspicion because of the possibility of self-interest.

The Idea Itself

1. *Its Apparent Reasonableness.* A third test considers the idea by itself. Does it—for one thing—appear consistent with well-established experience; with other known facts in

the case; with itself? As a rule this test, like the preceding, gives only presumption. Nearly every original idea seems more or less unreasonable, inconsistent, at first sight. Nevertheless, the test is of great practical usefulness, in warning us to be cautious as to further investigation. Sometimes it is decisive, revealing fatal dishonesty or error. The lawyers use it constantly in this way. On one occasion Lincoln was defending a man charged with murder—the Grayson case. He obtained from the chief witness for the prosecution the sworn statement that he had himself seen the shooting by the light of the moon. Then Lincoln proved from an almanac that there was no moon on the night in question.

2. *Its Importance.* This test of the importance of an idea is used constantly by every man in practical life. Supposing that a given statement is true or that a suggested plan will work, what difference will it make on the whole? Is the amount at stake in one or another way sufficient to justify possible interference with other matters? Does it justify even further investigation? Many a project, irreproachable but trivial, is shown the door at this point.

On the other hand, the executive with insight sometimes perceives a profoundly important issue at stake in something which appears to be trivial—as Henry Ford did in the case of the radiator cap. (See Chapter X.)

Correctness of the Process of Reasoning

Finally, we may test the reasoning, the accuracy that is to say, of the process by which one thought leads to another. This is the most certain, but the most difficult way of testing.

Reasoning consists of a series or chain of judgments. You know—or believe—that a certain thing is true. You discover that that thing depends upon another so closely that if the first is true the second must be equally true. This in its turn you discover depends with equal closeness upon a

third. You accept the third accordingly as equally true, and so on.

Psychologists and lawyers, who must do their work thoroughly, have carefully worked out and classified the more frequent defects of reasoning, the ways in which we may be deceived in passing from one judgment to another, and have indicated convenient methods of detecting these errors. The difficulty is that these classifications made by psychologists and logicians for their own use are far too detailed and complicated for the busy executive. They are to be used by specialists. We may simplify these "rules," "tests," "canons," etc., applied to the process of reasoning somewhat as follows:

When we seek to test the soundness of any argument, any process of reasoning whatever, we should apply to it the following three questions in as much detail as seems necessary.

Correctness of Premises

1. Are the "premises," that is, the successive statements as to fact, accurate, correct? This is really applying to the single statements the test applied above to the whole idea. Often errors are discovered at this point. Take for example the argument:

Interference with another man's business is illegal.
Underselling interferes with another man's business.
Therefore bargain sales are illegal.

Here, as a little reflection shows, the term "interference with another man's business" is used in two different senses in the first and second statements.

Incorrect Sequence—Analogy

2. Do the premises really lead to the conclusion offered? Under this come at least two possible cases:

- (a) Is the apparent connection of premises with conclusion merely accidental; for instance, is the relation of premises and conclusion merely one of *analogy*?

The following instance seems so extravagant as to be quite improbable, yet we have all known apparently sensible persons to reason just as hastily:

"I positively refuse to employ any cashier in this bank who wears rubber heels," declared the president of a fairly prominent bank. "Such a man is dishonest."

It was found that a former cashier, who wore rubber heels, had absconded with funds sufficient to entail a heavy loss upon the institution.

In advocating business plans the temptation to use analogy is constant. It is not always so easily detected as in the following from a prospectus:

"The history of the Standard Oil Company is known by everybody from Maine to California," announces a promoter, with much truth. "It is the greatest money-making industry in the world. The X Y Z Company does not expect to achieve such great financial success as the Standard Oil Company, but it is in the same line of business—*refining*—and therefore its stock should be purchased for the very great profits that seem to be assured for those who invest now in its treasury stock."

Of course the fact that one oil company has succeeded is by no means proof positive that another will do so.

Incorrect Sequence—Evidence Not Sufficient

The second case under this head is even more troublesome:

- (b) Is the inference of conclusion from premises based upon too few instances, or upon those which are not representative?

This is one of the chief causes of faulty reasoning in life

and in business. It is important but often difficult to recollect that one swallow does not make a summer. The apparent success of a plan in a few cases, of which we have heard, cannot safely be taken as conclusive. In important matters a decision should be based on instances which are sufficient.

The following is from an advertisement of a school of advertising:

Walter McMillan will serve as a good illustration of a young man who "woke up." He was employed as a clerk by the Armour Packing Company of Kansas City, with nothing in prospect but the desk with its endless drudgery. He read the signs correctly, and after careful investigation decided that the Carlton College of Advertising could give him the thorough, practical advertising education he craved. Almost immediately after completing the course he was referred by the college to the *Kansas City Journal*, where he started at just four times the salary he was receiving in his former position. He is there today and has been still further advanced. What Mr. McMillan has done you can do.

Interesting but not conclusive. The formula "clerk+ Carlton College of Advertising course=newspaper position +4 times former salary" is far from universal.

An engineering company constructing a large power-plant dam was investigating the local rainfall and flood conditions. All the records for 18 years back showed moderate, even rainfall and no floods. But the investigators were not satisfied; they went back further yet; and they found that for the preceding 18-year period the records showed heavy rains and repeated floods.

In all matters upon which statistics are supposed to be the final authority it is well to note whether or not these statistics cover sufficient cases to justify the conclusions drawn from them. The police reports in a certain Massachusetts town showed that its Turkish population was criminal to the astonishing degree of 300 per cent! Inquiry elicited the fact, however, that said Turkish population consisted of one man, who

had been jailed for drunkenness three times! Errors of this nature have been responsible for the famous remark that there were three grades of liars; plain liars, d—d liars, and statisticians!

Factors Overlooked

3. Have other and presumably important factors in the case been left out of consideration?

This is the most frequent and most troublesome error for the business executive. The question he has to decide concerns the future—is it probable that such and such an action will be on the whole beneficial, profitable? Where human action is involved the factors are many and variable.

“The winter before our ventilation system was installed,” so runs the advertisement of a well-known manufacturer, “in this insurance company $27\frac{1}{2}$ per cent of the employees were absent owing to illness; the installation of our system the next winter cut this down to $7\frac{1}{2}$ per cent.”

Not proved. Perhaps a mild winter, or the absence of epidemics, or the engagement of a company physician, or the installation of a different heating system, etc., may have been even more responsible than the ventilation system for this decrease from $27\frac{1}{2}$ to $7\frac{1}{2}$ per cent.

This example could be paralleled no doubt in the daily experience of almost every executive. The prudent man learns to look on all sides of a proposal before he lets his mind come to a final conclusion.

Validity of These Tests

This system described, we must repeat, consists merely in applying more deliberately and systematically the same sort of tests which we all apply in matters of daily life; whether or not to carry an overcoat this morning, whether to take this road or that, on a drive. In most of these little personal

matters our mental action is so swift as to be practically automatic—they are attended to by the lower nerve centers, as explained in Chapter X—yet if we check up our actions we find that we are really applying these tests of thinking one by one, until we are satisfied.

The same tests expressed in more formal, complete, lengthy terms constitute a very important part of the subject matter of psychology and logic, the sciences which deal especially with the way the human mind works. These tests accurately and systematically applied—whether the statement of them be elaborate or brief—will guide us safely in estimating business methods and projects. In fact, there are no other tests for careful human thinking.

EXERCISES

Problems in Analysis

As an exercise for developing the judgment let us consider certain problems in analysis. In the process of analysis, similarities and differences are detected and upon these as a basis classifications are made. Study the following rules, noting, of course, the errors used for purpose of illustration and preparing answers to the questions:

1. Every division is based upon differences in *some attribute common to all the members* of the whole to be divided. In classifying businesses as individual proprietorships, partnerships, or corporations, what has been taken as the common attribute? A statistical company recently issued a circular in which industrial stocks were referred to as coppers, leathers, oils, steels, motors, and marines. What was the basis of classification here chosen?

2. Each division in order to be consistent must *rest upon one common attribute*. Should businesses be classified as individual proprietorships, partnerships, and monopolies, what is the basis of classification taken for the first two? for the third?

3. The various groups must be *mutually exclusive*. A young employment manager in his report was found to have classified the factory's employees into administrative, machine shop, foundry, assembly, and Austrians. In another instance the purchasing agent

referred to belting, oil, copper, and metals. What fallacies were involved? How would you have avoided them?

4. The division must be *complete*, so that the various groups when combined will equal the whole. A merchant estimated his rent, salaries, spoiled merchandise, and bad accounts as totaling 16 per cent and, since a profit of 20 per cent was desired, marked his goods at an advance of 36 per cent. In what respect was this figure fallacious?

Let us now apply our tests concerning evidence to certain examples which have been drawn from the current newspapers and magazines. These examples have been stripped of all non-essential matter in order that the fallacies—that is, the errors in reasoning—may be more readily exposed. Since as a usual thing fallacies are imbedded in the midst of long statements and much perfectly good reasoning, you will find it helpful likewise to reduce questionable arguments to their barest outlines. What, boiled down to its essence, does this speaker or this article claim?

Lack of ideas is fatal to business success.

This efficiency expert has many ideas.

Therefore you should not oppose the policies he advocates.

Whatever harms people should be avoided.

A tariff on steel girders harms building contractors.

Therefore the protective tariff should be avoided.

Bankruptcy is proof that wrong procedure was followed.

Jones is a bankrupt.

Therefore to succeed do just the opposite to what Jones advises.

Lawsuits should be avoided.

Collecting this bill from Smith involves a lawsuit.

Therefore this bill should not be collected.

A federal Bureau of Business Practice we declare would be unconstitutional.

Things which are unconstitutional cannot become law.

Therefore you should oppose a bill authorizing such bureau.

War is a dreadful thing.

Johnson discharged his employees who joined the militia.

Therefore Johnson is a true humanitarian.

The best accountant I ever employed had red hair.

This accountant has red hair.

Therefore I shall engage him.

Our advertising manager expected sales to exceed \$150,000 per week. They have not passed beyond \$125,000. Therefore he should be discharged.

Mill's Five Canons

The famous writer on political economy, John Stuart Mill, in his "System of Logic," has formulated five "canons" or rules for the discovery of "causal relations." The business man who masters these five canons, utilizing the illustrations given herewith, will find that he has definitely gained in his power of getting at the *essentials*.

First Canon, the Method of Agreement. "If two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which alone the instances agree, is the cause (or effect), of the given phenomenon."

An example of this method often cited by logicians is the experiment carried on by Sir David Brewster in his attempt to find the cause for the colors seen upon mother-of-pearl. These were quite naturally supposed to be due to the chemical or physical nature of the substance itself, but Sir David, happening to take an impression of the mother-of-pearl in wax, found that although the substances were entirely different the colors were exactly the same. He next took impressions in balsam, gum-arabic, resin, etc., and afterwards marked a metal surface with very fine, close grooves, in every case producing the same iridescent colors found with mother-of-pearl. The form of the surface, therefore, which had been the only factor remaining the same throughout, and not the chemical or physical composition, which had varied in each case, was by the method of agreement very properly concluded to be the cause sought.

Second Canon, the Method of Difference. "If an instance in which the phenomenon under investigation occurs and an instance in which it does not occur, have every circumstance in common save one, that one occurring only in the former; the circumstance in which alone the two instances differ is the effect, or the cause, or an indispensable part of the cause of the phenomenon."

This is the method of experiment and its utility, as Jevons points out, depends mainly upon the precaution of varying one circumstance only at a time, all other circumstances being maintained just as they were.

The instance of the star salesman who protested against being charged with any advertising expense whatever, claiming that the sales were not due to advertising influence but to his own ability, illustrates very nicely the use of this canon.

"Very well," returned the sales manager, "you are to have Ohio as your territory then, on your old commission. We have not as yet advertised there and shall not, now that it is to be your territory."

The salesman, well pleased with himself, sallied forth to conquer the Ohio territory. But business proved hard to get, with commissions as a consequence small, and, although for six weeks he marched and countermarched across various sections of that territory, in the end he returned thoroughly beaten to headquarters. Advertising, he was convinced, did help him on the firing line.

The full validity of this proof concerning the influence of advertising obviously depends upon its being the only circumstance which varied. This searching question is to be borne in mind, therefore, in securing accurate results through the method of difference: Do other conditions remain unchanged?

Third Canon, the Joint Method of Agreement and Difference. "If two or more instances in which the phenomenon occurs have only one circumstance in common, while two or more instances in which it does not occur have nothing in common save the absence of that circumstance; the circumstance in which alone the two sets of instances differ, is the effect, or the cause, or an indispensable part of the cause of the phenomenon."

What we have here is a double application of the method of agreement, first to a number of instances where an effect is produced and secondly to a number of quite different instances in which the effect is not produced.

A manufacturer, let us say, has experienced considerable trouble from complaints concerning defective rear wheels in wagons which he placed on the market. The foreman declares the difficulty is due to overloading in the wheat regions; the works manager thinks possibly the relatively inexperienced mechanics engaged in one department (Department B) following a strike may have turned out some poor work which escaped detection; while the sales manager gives it as his opinion that the dry climate in certain sections is responsible. Complaints are tabulated from several sections as follows:

Complaint A: Broken wheel made by Dept. B—farm use—dry region.

Complaint B: Loose hub—made by Dept. B—lumber camp—damp region.

Complaint C: Defective bands—made by Dept. B—coal delivery—average climate.

Complaint D: Cracked spokes—made by Dept. B—dairy use—damp climate; etc., etc.

The returns concerning these various wagons reveal the fact that only one circumstance is invariably present, "made in Dept. B." That this is the cause sought is probable, but in order to render the conclusion still more definite, it is decided to investigate negative instances, or in other words, cases in which the wagons had proved entirely satisfactory. This reveals that the wagons made by departments other than B are being used under widely varying conditions of climate and load, and that uniformly they are giving satisfaction. This information shows that where no complaints had been received one and only one condition was invariably absent; viz., the work of Department B. This confirms the previous investigation.

Fourth Canon, the Method of Concomitant Variations. "Whatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon or is connected with it through some fact of causation."

The directors of a certain large baking concern in their deliberations at a particular meeting not long since illustrated how this canon is applied. The instance, it will be recognized, has been stated in much simpler terms than actually existed for obviously no bakery's success is dependent upon three factors alone. But otherwise the conditions remain unchanged. This was the evidence placed before them:

Kansas City plant—run-down business. Coming of Supt. Smith=improving business.

Pittsburgh plant—high costs. Coming of Supt. Smith=improving business.

Boston plant—factional quarrels. Coming of Supt. Smith=improving business.

According to detailed records submitted by the firm's accountants it was clear that the increasing week by week tenure of this particular executive and a plant's gradual reaching of its standard in capacity and costs were in close causal connection. The board proceeded to elect Superintendent Smith general manager, and the same ability which enabled him to put plant after plant into condition is now operating successfully in a wider field.

Inasmuch as business problems very frequently are characterized by change, it is found convenient to utilize this method of detecting causes from the study of concomitant variations.

Fifth Canon, the Method of Residues. "Subduct from any phenomenon such part as is known by previous inductions to be the

effect of certain antecedents and the residue of the phenomenon is the effect of the remaining antecedents."

This method was employed by Sir Isaac Newton in an ingenious experiment in which he sought to determine the elasticity of substances by allowing balls made of these various substances to swing against each other, and then observing how far they rebounded in comparison with their original fall. This loss of motion, however, Sir Isaac was well aware, is due only in part to imperfect elasticity, since the resistance of the air also enters in to effect the result. He determined the strength of this resistance by allowing the balls to swing without striking each other and observing how much each variation was less than the last. By being enabled in this way to compute the quantity which must be deducted for the resistance of the air, he had at the same time determined the elasticity of the substances under investigation, since these were expressed by the residue.

It may very likely be that after the effects of all the known causes have been subtracted from a given phenomenon a residue still continues to exist. One is tempted to pass over such residue without further investigation, since to the average mind at least residual phenomenon are usually obscure and seemingly unimportant. Nevertheless, this final canon emphasizes the importance of a complete and precise solution of the problem at hand.

PART V

AIDS TO EFFICIENT CONTROL OF BUSINESS

To judge your business fairly, you must review the past, know the present, and judge the future from what you have done and what you are doing, coupled with a careful survey of the field in which you operate.—HENRY CLEWS.

Properly classified records act as a measure of efficiency; they point definitely to either a profit or a loss.
—LEO GREENDLINGER.

CHAPTER XIV

CONTROL THROUGH STATISTICS

To the keen, analytical mind in business there is scarcely such a thing as chance, for this reading of the future by analysis removes the elements of uncertainty in any enterprise.—JOHN H. HANAN, President of Hanan and Son.

The Problem of Control

The trained mind, reasoning along the lines suggested in the preceding two chapters, depends constantly for accurate results upon statistical information. Facts, verifiable evidence of every operation from the purchase of raw materials to the collection of bills due, have in every progressive business establishment fairly effectively ousted Dame Chance; the manager applying the best practice of today has become convinced he cannot continually guess nor wait for year-end inventories, but must exercise day-to-day control.

The necessity for this close control becomes apparent upon an examination of cost data, compiled under the competitive conditions which prevail today in industry. A commodity which the manufacturer, let us say, puts upon the market for \$160 has entailed the various items of expense shown in Figure 23.

Here expenditures of \$150 yield a profit of \$10—6 7/10 per cent on the cost price or 6 3/10 per cent on the selling price. The narrow margin speaks in no uncertain terms of competition, and it emphasizes at the same time the important influence upon the results of what managers of the old time school refer to contemptuously as little things; a five dollar reduction in any of these cost items increases net profits 50 per cent; a ten dollar accumulation of small wastes wipes out profits en-

tirely. These items, in short, concern the business too vitally to be left subject to chance.

"In the game of business as in the game on the diamond," declares John T. Wolff, of the L. Wolff Manufacturing Company, with much truth, "it is the man who keeps score on re-

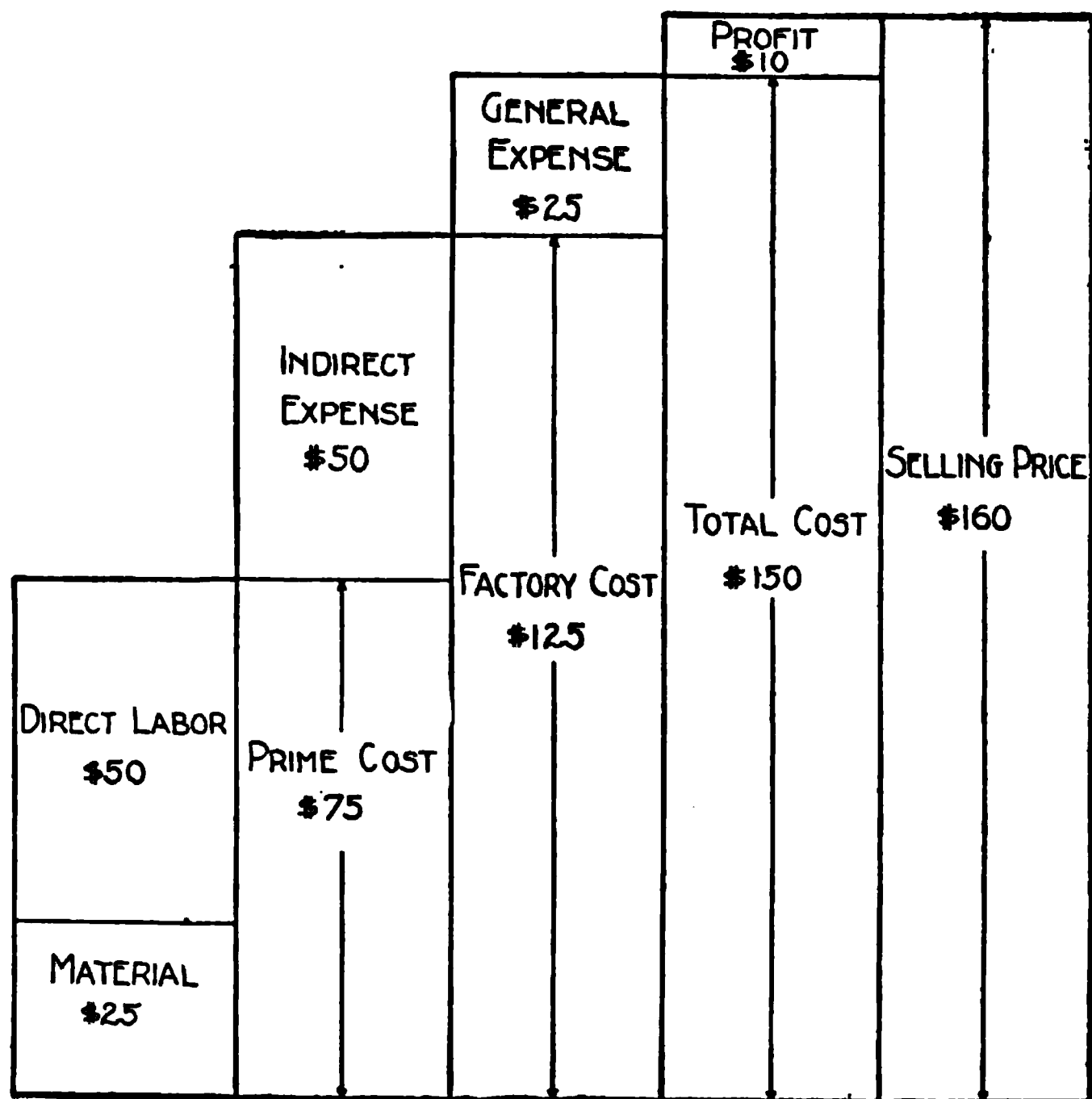


Figure 23. The Elements of Costs

(Adapted from Nicholson's "Cost Accounting—Theory and Practice" by permission of the publishers.)

sults who follows most closely the progress and the profits of his work."

The problem of statistical control is (a) how to secure the needed data most easily and quickly, and (b) how to utilize it with effectiveness in the management of a business.

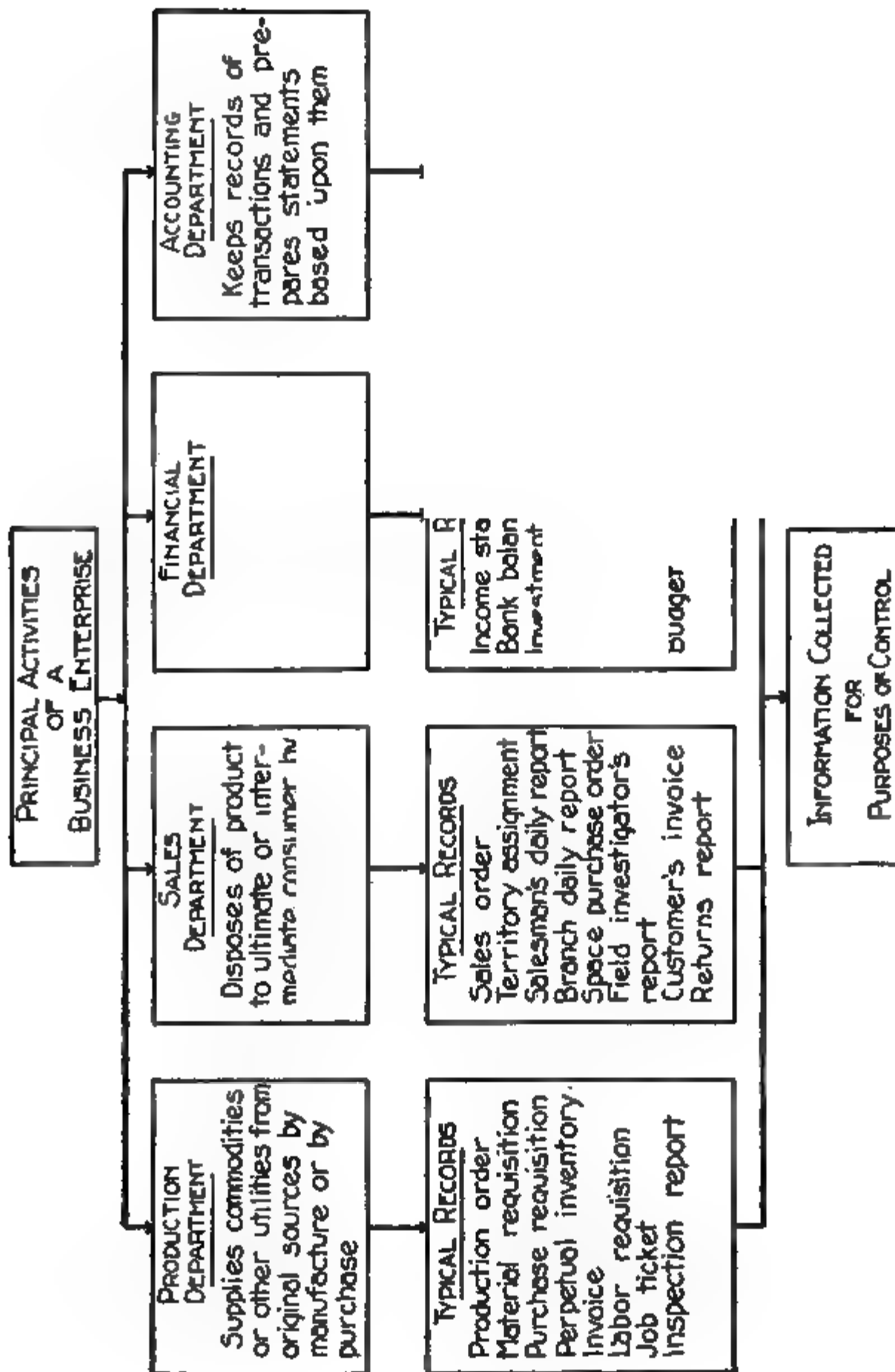


Figure 24. The Securing of Statistical Data

The Securing of Statistical Data

The usual basis of control within a business consists of the original entries made by clerks and workmen upon the various forms with which they have been provided. In consequence, information concerning all phases of its activity continually collects, as indicated by the diagram of Figure 24.

This diagram sets forth with fair accuracy a fact increasingly characteristic of the large-scale enterprise—that its wage earners, clerks, salesmen, correspondents, executives, etc., do much recording of their respective accomplishments. While accountants often apply the term “unproductive” to those engaged strictly in recording, and executives oftentimes assume this term to be literally true, in the case of all record making such is not really the case; an effective control is produced.

“A wise direction is of more avail than overwhelming numbers; sound strategy than the most perfect organization,” rightly declared Henry L. Gantt; “a wise policy is of more avail than a large plant, good management than perfect equipment.”

Adequate Control at Reduced Cost

The value, indeed the necessity of control and the part which records play in this control convince most business men that accounting cannot be safely ignored. Nevertheless there are organizations so completely bound in “red tape” that the energies of this staff, turned card-wise, exhibit a sorry showing result-wise. Control can be purchased at too high a price. The problem here faced is much the same as encountered in other phases of the business—how with a minimum outlay for recording to secure maximum results in control.

The following, while they do not constitute an inclusive list, indicate methods that work out well in practice.

1. Standardized forms.
2. Essential data.

- 3. Samples.
- 4. Up-to-date information.
- 5. Summarized reports.
- 6. Statistical analysis.

1. Standardized Forms

The proper allotment of space in the planning of a unit record form reduces considerably the labor in making the original entries. (See Figure 25.) The setting aside of specific space for specific facts secures increased ease in the recording itself, with decreased liability of omitting pertinent data.

Data which controls the filing	Data for sub-classification. Summaries and digests for quick reference.
BODY OF THE REPORT: This area to be more or less definitely broken up into appropriate rectangular areas which, as blanks, will remind the reporter of each element required in his report, and which, as records, will ensure speed in the use of the form, by providing a uniform location for each class of information.	
RESERVE SPACE: For suggestions, exceptional facts, matters difficult to classify above, or any pertinent additional data not planned for in the original layout.	

Figure 25. General Layout of a Unit Record
(Reproduced by permission from Jones' "Administration of Industrial Enterprises.")

In addition to a standardized layout, it also increases the ease with which forms are filled out if the spaces between horizontal rulings agree in width with the regular typewriter spacings, and if these rulings are so arranged underneath each other as to require the least movement of the typewriter carriage right or left with each new line in order to follow the form's indentation. Further standardization can well simplify

the amount of writing required in recording the information, the ideal form in this respect being one in which figures or check words tell most of the story. Finally the use of similar records by different departments can be so arranged that a single record made with several carbon copies will suffice in place of the numerous isolated and vexatious reports so frequently found.

2. Essential Data

In the securing and use of data, the nature and operating conditions of the business are of primary importance. Brick making plants cannot without extensive modification take over a department store's accounting system, nor can metal working establishments use with satisfaction a system prescribed for steam railways. Transactions in the case of any given business should be recorded according to a system devised for it, since only in this way can the collection of much useless information be eliminated while at the same time all essential statistics are secured.

In case of doubt it is well to record rather more than less information, the extra cost being regarded in the nature of insurance. At the same time a more careful mapping out in advance of those essential factors concerning which information is wanted would save much useless recording and in the experience of most organizations would pay for its trouble manifold.

3. Samples

Certain activities of a business, such as purchasing, selling or check drawing, must in every single instance be recorded. In other cases, however, complete information concerning every item is not always required for purposes of control. The business man usually decides from the showing of a limited number of samples what can be expected of an entire consignment of tin containers or lead pencils or bolts of cloth.

The value of a sample depends upon the faithfulness with which it represents the group. This value, the prime consideration in the use of samples, can be somewhat more readily attained in practice by the use of the following simple rules.

- a. The group itself should be carefully and exactly defined.
- b. In securing samples, every member of the group under consideration should have practically the same chance of being included.
- c. Should the arbitrary action of chance appear unsatisfactory, then fair samples may be selected by other means.
- d. The number of samples should be increased until successive tests show sufficiently similar results.

4. Up-to-date Information

The compilation of the report requires time, which if prolonged too much renders its data valuable chiefly for purposes of history. The executive, however, since he wants not merely a record of what has been done but data upon which to predict future performances, needs these reports promptly if he is to use them with effectiveness. Such up-to-dateness can be secured by a time schedule. Special reports, it is true, are not easily brought into line but the time schedule can be adjusted satisfactorily for all regular reports, the amount of leeway permitted being at the most only equivalent to the period covered by the report. Regular monthly reports ought never to be over one month late, weekly reports over a week late, daily reports over a day late, because in moving down the streets of business the accountant, always several steps behind the executive, must walk just as fast as if only one step behind.

5. Summarized Reports

The executive, whether he be at the head of a department or in charge of an entire establishment, who tries to digest *all* the statistics which pertain to his business will be overwhelmed.

He should have summarized reports, these in each case to be prepared from the viewpoint of his particular position.

An executive in a subordinate position needs to have a summary of the minor details for which he is responsible. To the executive higher up the same summary might be of little value because not broad enough in its scope. The higher official wants the first summaries of details to be again summarized and assembled in a form that covers the work for which he is responsible. The president of the big manufacturing concern, who is concerned with only broad results, wants comprehensive reports regarding the total of production, or expense, or sales and collections. If the figures at the end of the line show unsatisfactory results then the cause can be traced backwards and ascertained, providing statistics are complete all along the line.

6. Statistical Analysis

The statistics collected from the various departments of a business and used for purposes of control can with profit be analyzed in various ways. While a discussion of this very broad subject is not possible here, the more common of these analyses concern questions such as:

Have simple or weighted averages been employed? Which should have been employed?

How were the items originally distributed? What is the average deviation? The standard deviation?

What information can be gained by comparing average, median and mode of certain items?

What classification of accounts do my books show? Are the items of this classification accurate and adequate?

Are the balance sheet valuations sufficiently accurate? Have assets been distinguished from expense items? How was the worth of good-will determined? Has the proper rate for depreciation been determined and booked?

The man in an executive position, whatever the extent of his authority and responsibility, must develop the habit of using with discrimination such statistical reports as he can obtain.

"It is remarkable what an enormous amount can be saved in a business," declares H. W. Hall, manager of Wellington and Wood, "when every detail, large or small, is carefully watched through its medium of an efficient system."

Outside Conditions: Business Barometers

The statistical data drawn from inside an establishment are of decided usefulness, yet in themselves alone they cannot supply the close control desired. They must needs be supplemented. The executive after a time comes to realize that this enterprise of his is moved by certain far-reaching outside influences. Great periods of alternating prosperity and depression rock his project as a cockle-shell upon the deep so that, direct its inside activities as he will, he feels that his business future is in the grip of what to him oftentimes are but vast, unseen forces.

"A man may be thoroughly upright," declares President Upham of the Consumers Company, "of the highest personal character, and have had years of experience in the very best lines of the undertaking which he represents; yet if he has not the ability to discern those hidden influences which will operate for the success or failure of his project, he is not a safe man as an associate."

The Cycles of Business

The value of this ability to discern the underlying forces of business becomes more evident upon a brief examination of cycles which have occurred in the past. These, even though indicated in a general way, convey an important truth.

THE ANNALS OF TRADE SUMMARIZED

Years

- 1814 A crisis. Resources had been wasted in the war and erroneous policies in regard to foreign trade, taxation, and banking development augmented the distress.
- 1815-17 A period of revival. The restrictions caused by the embargo and the war were succeeded by an increased trade.
- 1818-19 Crisis. Radical changes encountered in fiscal and economic policies.
- 1819-37 An era of internal improvements, whose advance at times was halted, but only temporarily.
- 1837-43 Crisis, followed by depression. The launching of numerous highly speculative ventures together with vicious banking and currency measures brought about a relapse.
- 1843-57 A period of remarkable growth and prosperity.
- 1857-59 Crisis, followed by depression. Financial disturbance was a comparatively prominent feature.
- 1860-73 War demands stimulated industry, and close of war saw expansion continuing with but slight reaction.
- 1873-78 Crisis of decided severity, followed by unprecedented depression.
- 1879-90 Trade revival, interrupted temporarily by panic of 1884, made general progress.
- 1893-96 Crisis. Panic acute from May to October, 1893, and depression continued with but slight revival to end of period.
- 1897-02 High tide of prosperity continued in general throughout country.
- 1903-04 Financial panic and mild industrial depression.
- 1905-06 Prosperity in business again reached high tide.
- 1907-08 Crisis. Severe financial panic followed by deep depression in trade.
- 1909-12 Moderate revival in business.
- 1913-14 Crisis. Depression developed into crisis upon outbreak of war and business continued at low ebb into 1915.
- 1915-17 A period of unprecedented prosperity.
- 1918 Unsettled conditions and depression in some lines due to drastic war regulations.

"In the real world of business," declares Professor Wesley C. Mitchell, "affairs are always undergoing a cumulative change, always passing through some phase of a business cycle into some other phase. Prosperity is relapsing into depression, or becoming more intense, or breeding a crisis; a crisis is degenerating into a panic, or subsiding into depression; depression is becoming deeper, or merging into a revival of prosperity. In fact, if not in theory a state of change in business conditions is the only 'normal' state."

The Study of Fundamentals

Is it possible, in view of the vast changes summarized in the above annals of trade and in view of similar changes destined to come, for an executive who thinks only in terms of "inside the factory" to succeed in a large way? It cannot be. The narrow man will in due time see his business craft wrecked upon some reef unknown to him, but known to and carefully charted by men more broadly informed.

The man whose desire for business information is satisfied by a skimming of the daily paper and listening to what chance acquaintances may say in reply to his usual question of "How's business?" will not, needless to say, gain a knowledge of the underlying foundations of business management. Their utilization calls for something which the average business man does not always fancy, a patient and critical investigation. Fundamental data must be studied.

A Preliminary Analysis

In approaching the consideration of fundamental data it is useful to view the problems thus:

1. There is what may be called a regular cycle of business change passing through four well-defined periods. The periods will vary, of course, in relative length according to the general situation, but the order roughly is:

- A period of prosperity
- A period of decline
- A period of depression
- A period of improvement

The idea that prosperity or depression can be permanent, while theoretically possible of conception, does not work out in practice. Hence the vital importance of viewing business conditions in the way just stated as being characterized by four periods and always in change. This, the dynamic and the true point of view, indicates how business men are concerned both with conditions today and conditions to be expected.

2. Each phase of the business cycle records its progress in fundamental statistics, which furnish the student not only a clear idea of present conditions but serve tolerably well as barometers of storms or fair weather ahead.

These fundamental statistics have to do with a variety of items, a list far too long to be discussed here. We may, however, notice a few of them, and the way in which they are used to throw light upon business conditions. First of all let us consider the data relating to the volume of business.

The Volume of Business—Bank Clearings

In the transaction of business it is estimated that checks are employed to a degree exceeding ninety-five per cent. Since practically all these checks, in turn, pass through clearing houses, where their totals are recorded, the volume of bank clearings accurately mirrors the general state of trade. When times are prosperous and business brisk, the amounts passing through the clearing houses are relatively heavy; when opposite conditions prevail, fewer checks are drawn. In the record of bank clearings accordingly the business man has a very good barometer of present business conditions.

Bank clearings are reported by several financial journals, of which *The Commercial and Financial Chronicle* and *The Annalist*, both published in New York, are excellent. These journals also present comparative figures which make possible a study of the trend for several years past.

Further Data on Volume of Business

In addition to bank clearings, the following sources of information also are serviceable in estimating fluctuations in the volume of business.

Railroad Gross Earnings. The output of factories, the supplies of retailers, and other products of industry are transported, to a very large degree, by the railroads. Hence the amount of gross earnings indicates the volume of business, and in addition shows the prospects which concerns dependent upon the roads for orders, such as the equipment companies, have for securing contracts.

Number of Idle Cars. The use of this item as a source of information does not differ essentially from the above; when cars are idle in large numbers rail traffic is languishing and vice versa.

Output of Basic Commodities. The production of coal, copper, pig-iron, steel, cotton, corn, and wheat constitutes items of great importance since these are basic commodities whose fluctuations will be reflected a thousand times in other businesses dependent upon them.

Shipments of Grain, Livestock, Cotton, etc. The market condition of such commodities can be gathered from the reports published of the transactions which take place daily.

Foreign Trade. This concerns three items, the volume of exports, the volume of imports, and the trade balance.

Other Fundamental Statistics

Next in importance to the data regarding the volume of business are those which relate to commodity prices, as shown

both by market quotations for the commodities themselves and by such "index numbers" as are published by Dun's and by Bradstreet's.

A third group of data is that relating to currency statistics. Since money plays an important rôle in business and is sensitive with respect to changes, information concerning the conditions of the currency serves very well the functions of a barometer. Items dealing with currency statistics are: money in circulation, gold exports and imports, bank loans, bank deposits, surplus reserve of banks, domestic and foreign exchange rates, and money rates.

A fourth group of data concerns profits and speculation. The profits currently being attained are shown by two excellent sources; the earnings of the railroads and the earnings of the United States Steel Corporation. The reports of corporations engaged in mining, manufacturing, wholesaling, retailing, and banking supplement these two sources, and the statistics issued weekly by Dun's and Bradstreet's which show the extent of bankruptcy present the situation from its opposite side.

The prospects of profits are indicated by certain items into which the element of speculation enters more directly; the volume of transactions on the New York Stock Exchange, the mileage of railroads under construction, the unfilled orders of the United States Steel Corporation, the number of building permits granted, the new security issues offered the public, etc.

The Choice of Barometers

The foregoing list of items already is somewhat long, yet shall we claim it is at all complete?

In recent years various organizations have grown up devoted to the compilation and interpretation of commercial statistics. The two organizations which have done most to

render the use of fundamental statistics popular among business men, Babson's Statistical Organization and The Brookmire Economic Service, have selected respectively the two following groups of items as comprising in their opinion the essentials common to most businesses:

BABSON'S CLASSIFICATION	BROOKMIRE'S CLASSIFICATION
Mercantile Conditions	Business Conditions
1. Immigration	1. Bank clearings
2. New building	2. Railroad earnings
3. Failures	3. Steel billets
4. Bank clearings	4. U. S. steel orders
	5. Pig-iron production and prices
	6. Commodity prices
Monetary Conditions	7. Imports
5. Commodity prices	8. New building
6. Total foreign trade	Banking Conditions
7. Foreign money rates	9. Reserves
8. Domestic money rates	10. Deposits
	11. Rate of commercial paper
Investment Conditions	12. Percentage loans to deposits
9. Yield of leading crops	13. Percentage reserves to loans
10. Idle cars	Stock Market Conditions
11. Political factors	14. Average price thirty-two stocks
12. Stock market conditions	

The Sources of Statistics

These statistics are recorded with considerable completeness in trade journals, and somewhat condensed in daily papers, commonly in their financial section. *The Financial and Commercial Chronicle* and *The Annalist* publish weekly very satisfactory compilations of most of the subjects listed by Babson and Brookmire, and their data will suffice for the average needs.

The Interpretation of Fundamental Statistics

The problem thus becomes one of securing from these numerous and at times conflicting statistics some connected account concerning the business cycle prevailing at the time. The solution of this problem constitutes no small task. Professor Wesley C. Mitchell says:

Every business cycle, strictly speaking, is a unique series of events and has a unique explanation, because it is the outgrowth of a preceding series of events, likewise unique. Further, the intellectual instruments of analysis are unequal to the complex problem of handling simultaneous variations among a large number of interrelated functions. . . .

Notwithstanding, much would be gained for the conduct of individual affairs and the guidance of legislation could we single out from the maze of sequence among business phenomena a few which are substantially uniform. For these sequences could be used with a degree of confidence depending upon the regularity with which they recur as guides in forecasting the immediate business future. They could also serve as centers for organizing our knowledge concerning the variable sequences, and as points of departure in search for new uniformities. Such regular sequences would help us to break up the tangled mass of facts presented by direct observation into coherent clusters.

The solution of the problem here presented has been worked out by the two statistical organizations mentioned above in this way: Each has singled out certain items regarded as significant, as per the lists already presented; and each combines these items so as to exhibit general tendencies, Babson in the form of a composite plot, Brookmire in the form of a business, a banking, a stock graph. (See Figure 26, a and b.)

Significance of the Time Element

The items combined in this way picture excellently conditions prevailing in business. But the two charts both present another fact of interest, which can be pursued independently

in greater detail should one wish to do so, viz., varying fluctuations in point of time.

While in general we say that the really serviceable barometers are those which correlate most closely with our particular business, is it a matter of any importance whether this month's statistics of bank clearings or commodity prices or railroad earnings, let us say, correlate with the conditions of our business more closely or less closely than the similar statistics of last year would have done or of next year will do? In other words, does the time element especially concern us?

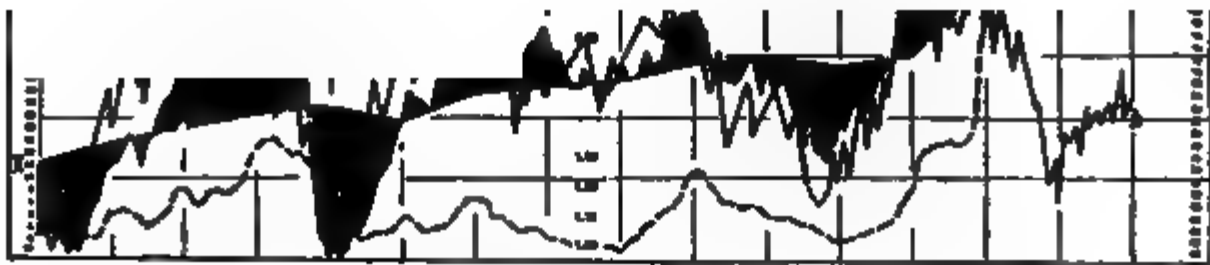


Figure 26 (a). Babson's "Compositplot"

Statistics covering the various topics shown in the classification on page 265 are presented by the *Babson's Statistical Organization* in the manner shown. (Reproduced by permission.)

The various items specified as barometers, such as exports, railroad earnings, immigration, business failures, all change as a period of prosperity fades into a period of decline and finally into depression, or vice versa; but they do not advance or recede simultaneously.

Bank clearings of a particular period were found correlated with commodity prices to the degree indicated by the coefficient $+0.758$; but the commodity prices were found correlated more closely with the bank clearings of the preceding

Figure 26 (b). Brookmire's Graph
(Reproduced by permission.)

year, the coefficient being $+.818$. In case we wish to use one of these two sets of data today as a basis upon which to reason what is likely to occur later in regard to the other, it is evident that bank clearings and commodity prices are by no means of equal efficacy in forecasting.

The items which tend to fluctuate first and thus serve to forecast changes later to take place in other items are stock prices, the number of shares traded in, bank clearings, new railroad mileage, and the percentage of business failures.

Forecasting Made Possible by Statistical Knowledge

Systematic study of statistics, both regarding one's own business and the business world in general, enables the executive to forecast the future, to utilize the experience of today and yesterday as an indicator of what is to occur tomorrow.

The gift of prophecy which in times past was presided over by a wonder-working priesthood, is in our machine age shorn of its mystical attributes and put into matter-of-fact service under the control of scientific method. The self-deceived man, the non-scientist, the man whose feelings, as Lord Bacon warns us, imbue and corrupt his understanding in innumerable and sometimes imperceptible ways, reads into the future his own prepossession, whereas the executive trained rigorously in the logical processes of thought normally develops the forecaster's type of mind. It is merely the proper course of reasoning to proceed from the known to the unknown, from the evident to the obscure, from the antecedents which are now seen to the consequents which are to be.

Wrong deductions will no doubt continue to be made, since business problems are complex, the facts often difficult to secure, and human powers of analysis all too limited. Yet the process of forecasting as it has been worked out is intrinsically sound and upon it no limits can safely be drawn.

EXERCISES

Forecasting

The rôle of foresight in enabling a man to take advantage of business changes is vital in its influence upon profits. The first exercise has for its aim the testing of your ability to predetermine events. (See Test Chart 14.)

As you survey this card after the last event has been decided and in the cold light of what has happened test your predictions of what was to happen, what is your opinion of yourself as a forecaster?

Perhaps the average is low. Be that as it may, the really important thing to do is to set about increasing your skill as a business prognosticator. As a means toward that end let us find out why this average was not higher:

Was this prediction based upon what you *hoped* would occur, instead of what you *believed* would occur? Was it based in any degree upon fear or anger or revenge or self-deception? Were you entirely open-minded about it?

Were certain of the causal factors which later brought about the result undetected by you at the time? In other words, was your analysis seriously incomplete?

Did you miscalculate in estimating the relative importance of the various factors, the result accordingly being materially reshaped?

Were additional factors, sufficient to alter the outcome, introduced after your original prediction was made?

Did you suspect the introduction of such factors, and estimate in advance their effect?

Are you unable to account for the failure of any of these projects to develop as predicted?

I PREDICT THAT	UPON THESE GROUNDS	RESULTS*	COMMENTS*
<hr/>	<hr/>	<hr/>	<hr/>

*To be filled in later. Test Chart 14. Six Forecasts

Certain of the forecasts will have been successful, however. These deserve a similarly careful examination since if their occurrence is dismissed as merely a case of "luck" you will not derive from them any particular improvement in method, and it is this improvement in method, the ability to increase consistently your percentage of correct forecasts, which constitutes the real goal. Accordingly, try to account for these successes as for the failures.

The results of the two preceding exercises let us set clearly before us, by means of Test Chart 15. A survey of its two columns, when completed, suggests several definite means of improvement. The incorrect methods are to be eliminated, the result-getting methods developed in their power of prevision.

Have you planned, in surveying the various means of improvement which Test Chart 15 has suggested, to utilize certain business barometers which Babson and Brookmire specify in their lists as given on page 265.

Which of these various barometers stand in close causal connection with your own business?

WHY I HAVE FAILED	WHY I HAVE BEEN CORRECT

Test Chart 15. A Personal Forecast

CHAPTER XV

GRAPHIC PRESENTATION

Though accurate data and real facts are valuable, when it comes to getting results the matter of presentation is ordinarily more important than the facts themselves.—WILLARD C. BRINTON.

Information in Usable Form

The executive readily can supply himself with statistical data, it appears evident from what has been said in the preceding chapter; but the effectiveness with which he can use such data in solving business problems depends to a large extent upon the form in which it is presented.

This statement applies especially of course to the men at the head of the organization. Industrial conditions today are dominated by giant corporations, which in the volume and complexity of their problems tax to the utmost the capacity of their managers. The heads of our large corporations, it is safe to say, are the hardest worked men in the world.

But the strain imposed by the complexity of business problems is felt also by men lower down, in charge of departments and divisions. The effect is sometimes to discourage any effort to do more than the literal requirements of one's job.

"If the average business man is able to think sufficiently to keep him abreast his day-to-day job," observes Charles W. Mears, advertising manager of the Winton Company, "he feels that he has done about all that anybody has the right to expect of him."

When men in executive positions slip into the state of

mind thus diagnosed by Mr. Mears it portends trouble for the business. What can prove more serious in the career of a going concern than the entrusting of its operations, in many cases of vast proportions, to men who feel themselves unable to command the complexities of their tasks?

The Mobilization of Business

The giant corporation at best is somewhat unwieldy but to achieve the greatest success it must be able, as business conditions change, to make the necessary adjustments with promptness. "It is always, I presume, a question in every business just how fast it is wise to go," says a noted profit-maker, John D. Rockefeller, in relating some of his early experiences, "and we went pretty rapidly in those days, building and expanding in all directions. We were being confronted with fresh emergencies constantly. A new oil field would be discovered, tanks for storage had to be built almost over night, and this was going on when old fields were being exhausted, so we were therefore often under the double strain of losing the facilities in one place where we were fully equipped, and having to build up a plant for storing and transporting in a new field where we were totally unprepared. These are some of the things which make the whole oil trade a perilous one, but we had with us a group of courageous men who recognized the great principle that a business cannot be a great success that does not fully and efficiently accept and take advantage of its opportunities."

Especial significance attaches to Mr. Rockefeller's concluding statement: "A business cannot be a great success that does not fully and efficiently accept and take advantage of its opportunities."

In order that it may fully and efficiently accept and take advantage of its opportunities, a business must be kept mobilized.

Speeding Up the Judgment

The mobilization of business forces has been vigorously pushed by the new school of scientific managers. Methods have been devised for bringing materials, machinery, men, capital, and even the management itself under close control. When this regulating apparatus has been properly connected with headquarters, it is assumed that the executive, like the dispatcher of trains, will hold the organization in the hollow of his hand.

But how can the executive himself, his problems marshaled before him, pass judgment upon them *quickly* and *accurately*? Too often the overworked manager, so intricate are the problems in themselves and so rapidly do they appear upon his desk, is tempted to base his answers upon opinion rather than fact and decide quickly with a hope that his guess is correct. Such sacrifice of accuracy to speed means disaster.

In order to meet this man's needs, therefore, the problem-solving method described in a previous chapter must be accelerated in its operation.

Condensed reports, worked up in the proper form, will usually provide the desired acceleration. They render it possible for the executive to decide both rapidly and accurately.

Much has been accomplished in recent years in devising report forms which can be used as accelerators, placing before the executive the statistical information which he must know in compact shape and with proper emphasis. Some of these "thumbnail reports" seem to have reached the limit of the expressive use of language in the conveyance of facts.

But we need not stop with language. There is a swifter mode of expression—the appeal to the eye, by means of diagrams, charts, and graphic devices of various kinds. Language, especially written language, is comparatively slow. Pictures address the eye, the swiftest of the senses. Diagrams

and charts, provided their proportions are accurate, present essential relationships at a glance.

Graphs in the Great War

These graphic methods of report and record were used with striking success in the Great War, when masses of details, on a scale often enormous, were handled with speed and accuracy. A correspondent thus describes the methods employed by General Berthelot, the French Chief of Staff, during the grim days of October, 1914.

Dunkirk, Oct. 28 (By mail): A man in pajamas (at least he wears them most of the time, being too busy to dress) is running the one thousand and one details of the French army. General Joffre is at the head and he handles the big questions, presses the buttons, so to speak, but General Berthelot, Chief of Staff, does the actual work.

After several trips along the fringe of the war, after meeting thousands of soldiers on the same day, some going north, some going south, in what appeared to be a hopeless tangle, it struck me more forcibly than ever that the modern fighting machine is the most complicated thing on earth.

I tried to imagine myself commanding all this, to grasp how a 200-mile line of this sort could be controlled and how it could possibly be kept from getting tangled up with itself and without interference by an enemy. My curiosity grew, until I decided to find out how all this business is managed by one man.

In General Joffre's headquarters, in a certain long room, hangs a special map, the scale of which is 1-1000. It shows every road, canal, railway, bridle path, pig-trail, bridge, clump of trees, hill, mountain, valley, river, creek, rill, and swamp. This is part of the outfit. Another part is a wonderful collection of wax-headed pins of all colors and sizes. These represent army units of all sizes and all organizations. Into the long room run many wires, both telephone and telegraph. Wireless apparatus is also in this room. The way it works seems wonderfully simple when it is explained.

The battle is about to commence. The troops have been distributed all along the 200-mile line. The Germans are facing them. A bell rings: "Hello! Yes! The Germans are attacking General Durand's division? They are in superior

numbers? The General needs re-enforcements? All right."

The staff officer who has taken this information over the phone hurries to where General Berthelot is sleeping. The General has just dozed off. This is the first sleep he has had in thirty-six hours. But General Berthelot is wide awake in an instant. He jumps to the floor, still wearing his pajamas, the only garment he has worn in several days. The staff officer reports.

In a twinkling, General Berthelot, who knows his map as he does his own face, locates Durand's division. He knows that ten miles back of Durand's command are quartered a number of reserves, under General Blanc, according to the pins. Berthelot also learns from the pins that a number of autobuses are near Blanc's soldiers.

"Order General Blanc," he commands, "to re-enforce Durand at once with 10,000 men, four batteries of 75-millimetre artillery, ten machine guns, and three squadrons of cavalry. Tell Blanc to transport his troops in autobuses."

Within two minutes, General Blanc has received the order. Within five more he is executing it, and General Durand is informed that help is coming to him.

Then General Berthelot takes another nap, if the battle will permit. If it does not, he stays awake to direct men who are miles away from him.

Every time a bridge is blown up or a pontoon has been thrown across a stream or a food convoy shifts, General Berthelot gets up and shifts his pins to indicate the change. Nothing happens along the 200-mile battle line but that General Berthelot, still in pajamas, leaps from his bed and changes the pins on the map. The map must be kept up to the minute. General Joffre must be able to look at it any time of the day or night.

As far as possible, through information brought in by spies or aviators, the forces of the enemy are kept track of in the same manner. No detail that is of use is overlooked. The pins indicate even the size of the guns, the kind of ammunition they use, and so on *ad infinitum*.

Why the Executive Uses Graphs

It was not only the courage and devotion of French soldiers which saved France and civilization at the Marne; it was also the development by the executives in charge of a

swift and reliable method for handling enormous masses of details.

The methods here utilized are equally applicable to business; condensed reports provide the information required and graphic methods of presentation render it usable. In consequence, when the details involved in the operation of a large scale enterprise have been condensed into a few graphic charts and laid regularly upon his desk, the manager who before was overburdened will sense the significance of mobilization in his business.

Graphic methods, in fact, provide a new language. Its symbols to the initiated convey quantitative facts with accuracy, ease, and rapidity.

1. They substitute facts for guess-work. The graph calls for verifiable evidence as its material; "I guess so," cannot be plotted.
2. They mean organized thinking. Myriads of details are summarized that the essentials may be set forth.
3. They keep results in sight. They are both a check upon what has been done and an incentive to accomplishment. The plain record of what has been stimulates the mind to seek what is to come and aids it in answering this question wisely.

In fact, graphic methods are short cuts to business knowledge. The essential facts and relationships which it might take months to discover through unaided study are, when properly presented, focused into a half-day's time.

Maps

In securing for himself these benefits of graphic methods, the business man has at his command several different mediums or devices. Among these, maps are available for a variety of purposes.

A wall map for instance may be shaded to show the consumption capacity, consumer occupations, yield of crops per acre, potential water-power, or similar information of a particular territory. In any case, a scale according to which the shading is done must be decided upon, usually the portion highest in the particular item under consideration being made solid black and the lowest left white. This scale, it may be added, as a rule should be placed for explanation in a lower corner of the map.

Coloring may be used in practically the same way as shading, although shading is better for showing gradations in the same item and for purposes of reproduction. The sales manager of an agricultural implement house, for instance, when indicating sections yielding varying bushels of corn per acre will find a map of blue, red, yellow, etc., less easily intelligible than a shading system with its progressive degrees of darkness. In marking off the territories of his various branch offices, however, color proves convenient.

Dots and circles placed upon the map convey very satisfactorily at times the information desired. An automobile manufacturer, selecting as his scale, let us say, one dot for every five hundred automobiles, pictures to himself and associates the distribution of motor cars in the United States. Or it may be he represents the total number of cars in a state by means of a circle of given size, a second circle representing those of his own manufacture.

Increasing the Map's Usefulness

The map and tack system, in which the various towns visited by a salesman are connected with a string, has for some time been commonly used by sales managers in routing their men.

Pins when used with maps increase their usefulness. Each pin may represent a service station, a sales agency, a branch

factory, a prospect, sales of \$1,000, or other items appropriate to this method of presentation. The large variety of pins available—plain, colored, numbered, lettered, celluloid-covered, cloth-covered, round, square, star, or flag design—enable one to devise almost any system one may desire.

President Simmons of the Simmons Hardware Company has hung in his office at St. Louis a huge map of the United States, on which appear colored disks. Each disk contains as its center the photograph of a salesman, the position of the disk indicating where the salesman is traveling and its color which one of the branch houses he travels for. An arrow back of the disk shows by its color and direction what that salesman is accomplishing in comparison with his previous record. The person familiar with this map reads its whole complicated story at a glance.

The map system with its various adjuncts is a complex and facile instrument, able to set forth data with considerable fairness and accuracy.

“Boards” Which Present Facts Graphically

An office manager, faced with the problem of keeping an accurate record of the employees whom he constantly shifted from one department to another as the work fluctuated in amount, finally hit upon the checker-board idea.

On a small card-table he diagramed the office. Serious congestion in a department he indicates by a small red flag, a surplus of workers by a small white flag. The employees he represents by celluloid discs, upon which their respective names are written. In addition to this he has worked out a color scheme: a white disc indicates an employee of ordinary ability; red, a division head; gold, a worker to whom special responsibility can be delegated; and half-red and half-white an employee in line for promotion. Tardiness is indicated by a small green thumb tack inserted into the disc.

Boards frequently prove serviceable for the display of various data. Sales per week of the sales force, with the respective contributions of each member, are placed upon a board in the salesmen's room for purposes of record and incentive. Interviews, luncheon appointments, meetings, and other engagements, particularly when the persons concerned have an active part in these affairs for which preparation must be made, may be noted upon small cards and either hung upon hooks or slipped into recesses upon a board arranged left to right according to the days of the week and top to bottom according to hours of the day. The various positions of officers and employees in an organization, with their duties, responsibilities, and connecting lines of authority, are sometimes charted by enterprising companies, for the information of their employees.

Control-Boards

The board as a check upon the progress of work is one of its most common uses. The architect whose desk sheet was shown on page 54 has what in essence may be termed a control-board. Contractors, printers, publishers, manufacturers—almost anyone in fact who wishes to keep a check upon himself in carrying through a job—separate a piece of work into certain essential processes and prepare the board to record under these headings the progress to date. Various elaborations of the control-board have been devised, most of them receiving the approval of the scientific managers.

Geometric Figures as Aids in Presentation

Charts expressing data by means of straight lines are often easily made and effective. A chart prepared for a busy manufacturer by his accountant was useful not only in picturing to the executive's own mind the work of a twelvemonth, but proved to be valuable "ammunition" when he appeared at the

various conferences held by the company's work managers during the year. The quota for each plant had been set at a conference held at the close of the previous fiscal year, the production expected for each month being indicated by a tick on a dotted line which represented said quota. A solid line which represented what was actually being attained was extended from month to month.

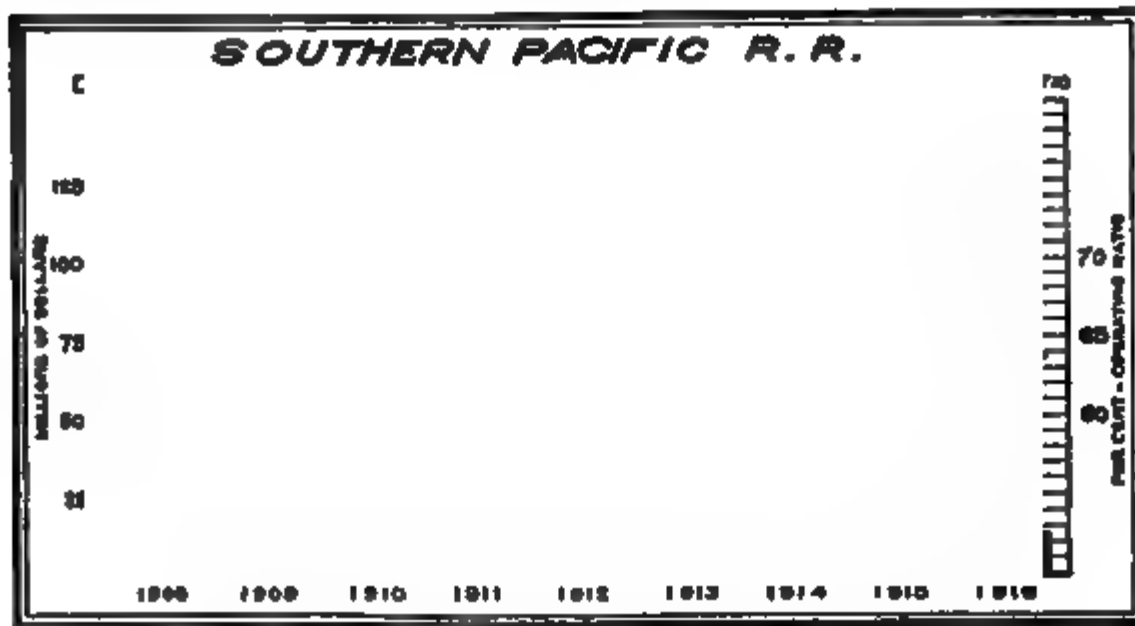


Figure 27. A Railroad's Operating Ratio

The Vertical Bars are here used with excellent result. A considerable body of data is set forth clearly, in such a way that comparisons can also be made without difficulty. (*Reproduced by permission from The Magazine of Wall Street.*)

Horizontal or vertical bars are in certain cases more satisfactory than lines. Length of line proportioned to volume of the items under consideration is, of course, the essential principle in Figure 27, but while the ordinary line might show this it would be indistinct as compared with the vertical bar used in this instance. Production records, volumes of sales, cost of an article, stock quotations, expenses, and savings are typical of items which lend themselves to presentation in this way.

The bar also is an excellent device for showing component parts. Two operators, let us say, are found under the stop-

watch to vary in the average time consumed in performing a certain process. This information is good so far as it goes, but for best results the time study should be detailed and

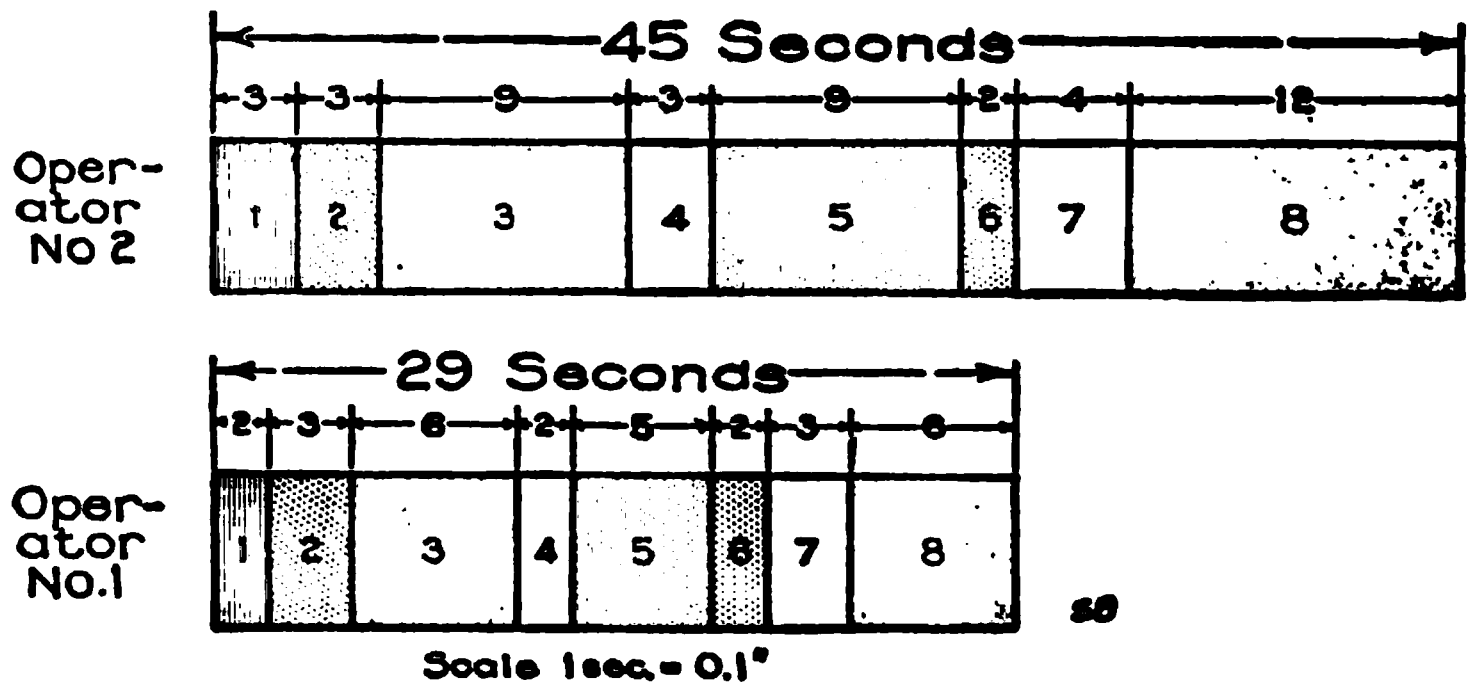


Figure 28. Detailed Time Study of Two Operators Labeling Packages

By this method of presentation the reader may see clearly the relative length of time for different operations as well as the comparison of total time taken by the two workers. Dimension marks and figures show conveniently, the actual number of seconds required. The different operations have been given numbers instead of names. The scale to which the chart is drawn is named. (Reproduced by permission from Brinton's *Graphic Methods for Presenting Facts*.)

the findings presented graphically. This has been done in Figure 28. Since it is often desired to present graphically in its component parts the disposition of the company's gross revenues, the relative amount sold of various supplies in a service station, or the items entering into the cost of a commodity, the horizontal or vertical bar has here a considerable field of usefulness.

Rectangles enable one to work still more freely with areas than is possible with the bar. The cube, or at least some form of solid, would seem at first thought to be somewhat more valuable than the rectangle in that it adds the third dimension. It is questionable, however, in view of the lack of skill shown by numerous makers of graphs, if to date the use of areas and solids in graphic presentation has not contributed more of confusion than of clarity.

Charts Which Confuse

The difficulty is well illustrated by this chart, prepared by the overzealous head of an accounting department, picturing his factory's production of shoes "in round numbers." (See Figure 29.) Are these three figures to be interpreted on the basis of diameter, of surface, or of cubic contents? In the first case the gain would be 1:2:4, in the second 1:4:8, in the third 1:8:64, certainly a considerable variation due solely to one's interpretation. It may be added that in this particular instance the comparison by diameter was intended, notwithstanding the use of the term "round numbers."

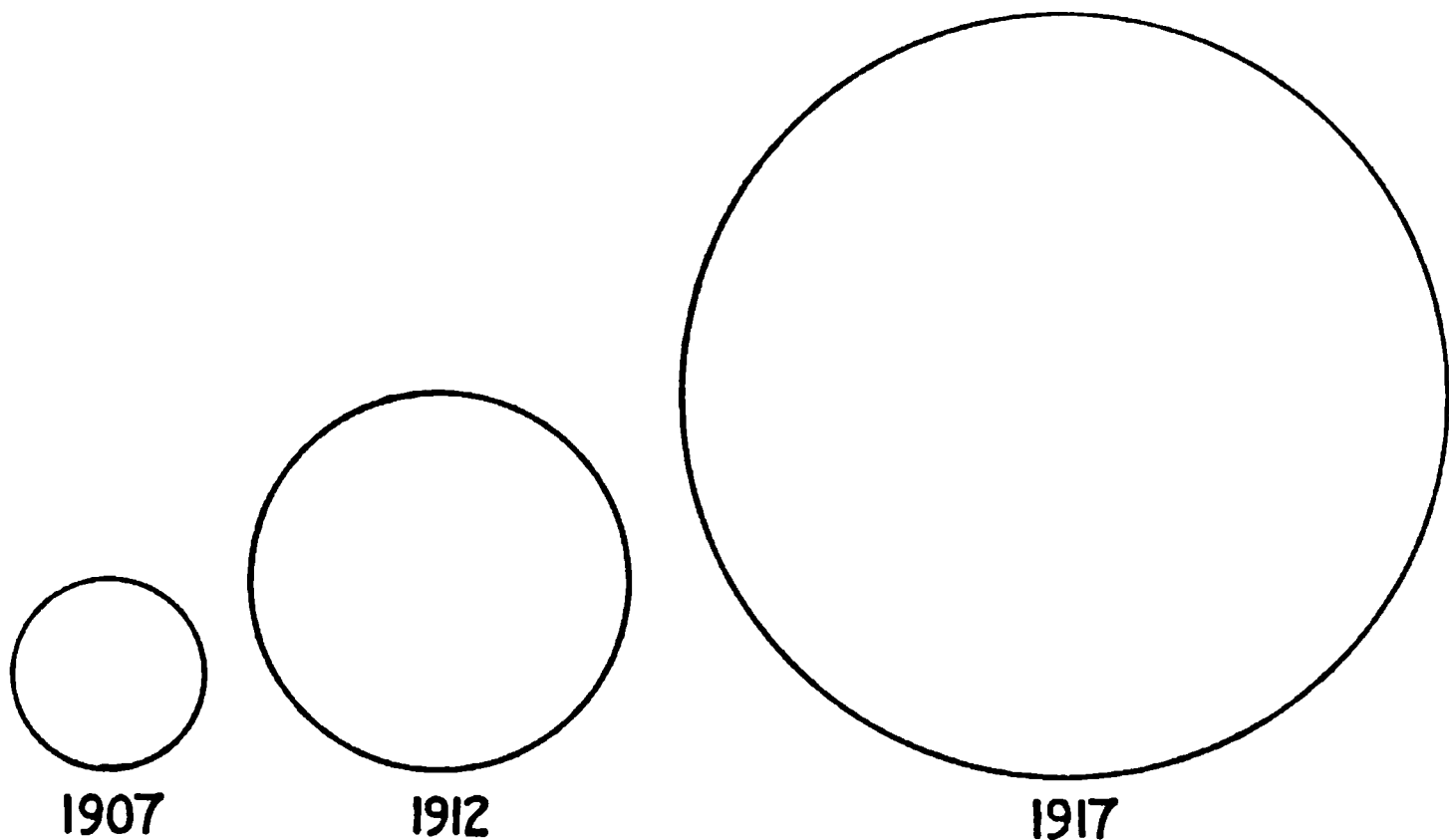


Figure 29. Factory Production of Shoes Shown "in Round Numbers"

In diameters these illustrations are as 1:2:4; in areas as 1:4:8; and in volumes 1:8:64. The diagrams should indicate clearly which interpretation is intended and include the data as well. In such cases it is preferable to use some forms of graphic device in which this chance for confusion does not arise.

The circle is in common use as a means of showing component parts. Public utility corporations during the last few years have frequently shown in this way the disposition of their gross revenues, an excellent choice for the purpose since no other graphic device has become so widely known nor so generally understood. In view of the erroneous theories con-

cerning cost, and the relation of his wages to cost held by the average wage-earner, such charts would serve a useful purpose generally in combating the irresponsible statements of agitators.

Curves, the Graphic Device Par Excellence

The device which is most commonly employed as a means for graphic presentation is the curve. The reasons for this we may illustrate by citing the control chart recommended by Mr. Farnham which shows the total net profit accruing from a business each month in comparison with the standard set on a proper return upon the investment. (See Figure 30.)

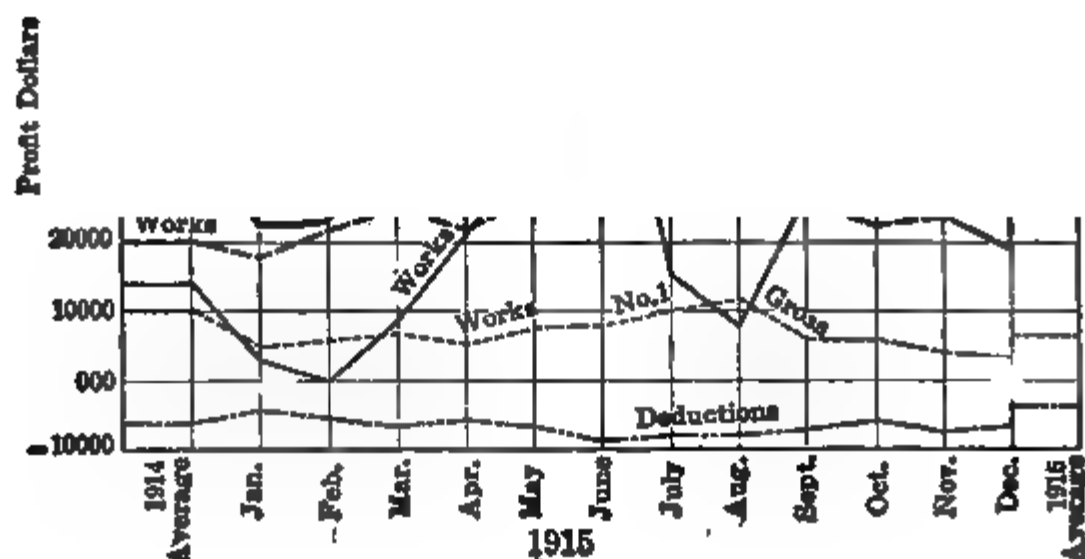


Figure 30. Control Curves Showing Gross Earnings of Three Factories
(Reproduced by permission from the *Engineering Magazine*.)

The standard profit, in this case ten per cent, has been represented by a straight line drawn across the chart at the proper height, and the danger point below which net profits should

not fall if adequate returns are to be earned, in this case set at five per cent, has been represented by a lower broken line. For purposes of comparison the average net profits for the previous year are shown by a third horizontal line. These three lines, one of them chiefly of historical interest and the others

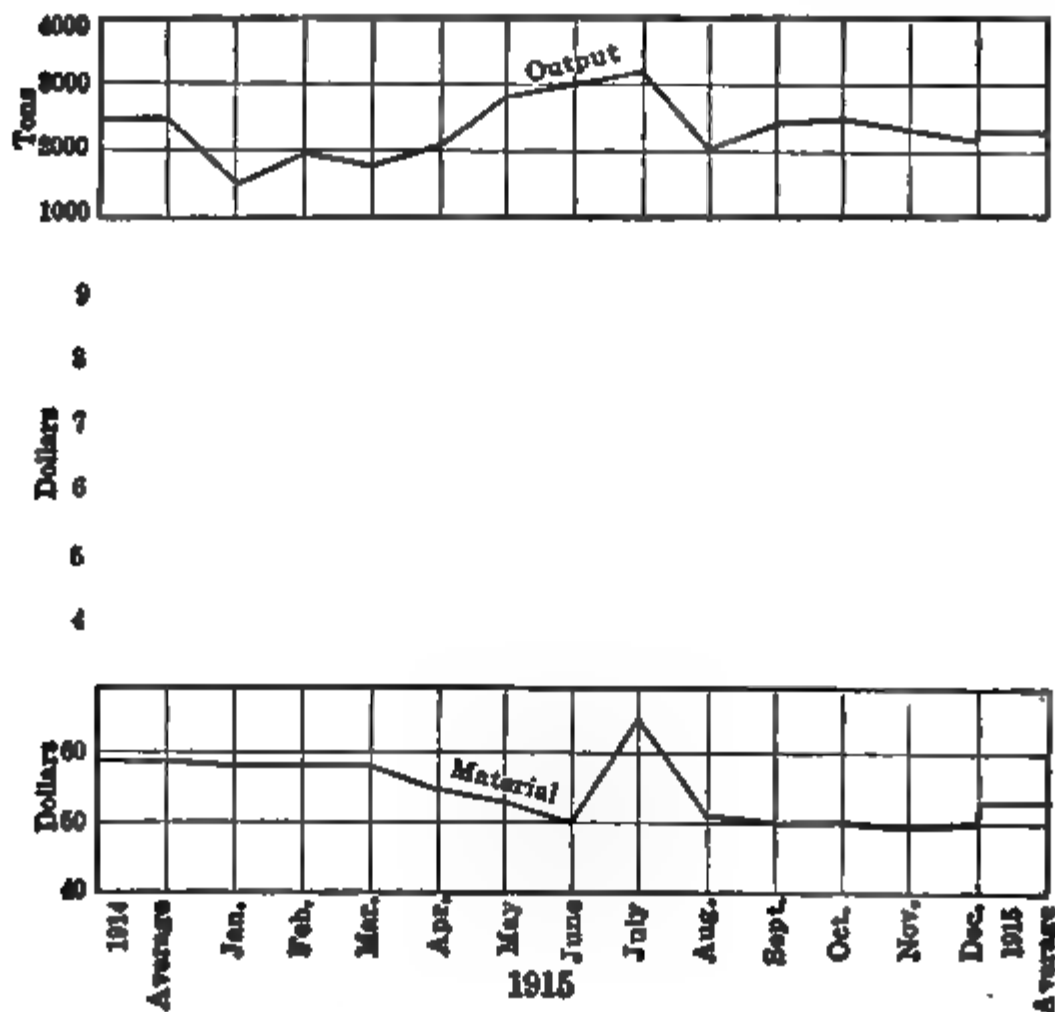


Figure 31. Curves Used as a Means of Executive Statistical Control
(Reproduced by permission from the *Engineering Magazine*.)

setting forth the results predetermined by the management, comprise what may be termed the preliminaries.

The gross earnings month by month derived from the firm's three factories are shown in Figure 31 by the three control curves marked Works No. 1, Works No. 2, and Works No. 3. Certain deductions, such as interest, discount, com-

missions, and other items not easily charged to the proper factory, are subtracted from the total profits derived from the three plants and the balance is shown by the "total net profit" curve.

Variations in this total net profit curve can readily be traced to their respective causes. When profits slump badly in July and August the executive need only glance at his curves to see that the returns from Works No. 1 were normal and that Works No. 3 was surpassing its record of last year. Works No. 2, however, calls for attention. Were curves available showing in detail the performance of the three plants, it would be a simple matter to pass from this master chart into each further analysis as appeared desirable.

The control curves by their ability to keep clearly before the executive the essentials of the information which he needs, thus give him a real grip upon the performance of the business. Accurate, clear, thought-provoking, comprehensive in its capacity to handle data and admirable in the comparison it affords, a curve is the graphic device *par excellence*.

Standards for Graphic Presentation

In order to attain its highest efficiency as a language presenting data with speed and clearness, the graphic method should utilize a set of somewhat carefully standardized symbols. Unless the graphs prepared by a half-dozen men working independently upon the same data show a reasonable degree of similarity, for example, it is to be expected that much needless effort will continue to be consumed in the interpretation of diagrams whose message should be conveyed to the reader at a glance.

While considerable unnecessary variety now obtains, standards are in process of being worked out. The American Society of Mechanical Engineers some time since invited a number of other scientific societies of national scope to co-

operate in a Joint Committee on Standards for Graphic Presentation, the purpose being to recommend a small number of brief and simple rules which may be used as a sort of grammar by persons having graphic presentations to prepare and to interpret. To date this committee has drawn up as a tentative list the following seventeen rules:

1. The general arrangement of a diagram should proceed from left to right.
2. Where possible represent quantities by linear magnitudes, as areas or volumes are more likely to be misinterpreted.
3. For a curve the vertical scale, whenever practicable, should be so selected that the zero line will appear on the diagram.
4. If the zero line of the vertical scale will not normally appear on the curve diagram, the zero line should be shown by the use of a horizontal break in the diagram.
5. The zero lines of the scales for a curve should be sharply distinguished from the other co-ordinate lines.
6. For curves having a scale representing percentages, it is usually desirable to emphasize in some distinctive way the 100 per cent line or other line used as a basis of comparison.
7. When the scale of a diagram refers to dates, and the period represented is not a complete unit, it is better not to emphasize the first and last ordinates, since such a diagram does not represent the beginning or end of time.
8. When curves are drawn on logarithmic co-ordinates, the limiting lines of the diagram should each be at some power of ten on the logarithmic scales.
9. It is advisable not to show any more co-ordinate lines than necessary to guide the eye in reading the diagram.
10. The curve lines of a diagram should be sharply distinguished from the ruling.
11. In curves representing a series of observations, it is advisable, whenever possible, to indicate clearly on the diagram all the points representing the separate observations.
12. The horizontal scale for curves should usually read from left to right and the vertical scale from bottom to top.
13. Figures for the scales of a diagram should be placed at the left and at the bottom or along the respective axes.
14. It is often desirable to include in the diagram the numerical data or formulae represented.
15. If numerical data are not included in the diagram it is desirable to give the data in tabular form accompanying the diagram.
16. All lettering and all figures on a diagram should be placed so

as to be easily read from the base as the bottom, or from the right-hand edge of the diagram as the bottom.

17. The title of a diagram should be made as clear and complete as possible. Sub-titles or descriptions should be added if necessary to insure clearness.

The standardization of graphic methods, through a general conformity to such rules as these, will insure a gradual perfecting of this already highly useful language until we shall possess a business shorthand of the n th power. With this to aid them, our corporation managers and those who are to manage the still greater enterprises of a decade hence will attain that speed and accuracy of decision which signifies their mastery of facts.

Qualities Essential to the Executive

What qualities are most essential in the success of an executive? The concensus of opinion of 276 business men whose ratings were secured by the author was this:*

1. Judgment, i. e., reasoning ability, accuracy in conclusions, ability to profit by experience; and
2. Initiative, i. e., alertness, imagination, originality, independence in thinking.

These are the two qualities with which the preceding five chapters have been concerned. Their cultivation will render the business man that which, if he is to succeed in a large way, he most of all should be, The Thinker in Business.

EXERCISES

Data You Need

The investigation of business establishments with respect to the data with which they work reveals two general defects: The data as a rule are seriously incomplete, and they are kept in more or less

*These results are presented with some detail in the author's book, "The Selection and Training of the Business Executive."

chaotic condition. Both these defects should be eliminated systematically.

Turn to the sources of information specified on pages 231 and 265. Which of these sources do you now utilize?

In order to administer a business effectively, a general executive should have before him at all times in convenient form data such as the following:

Material costs	Labor turnover
Inventories	Sales, orders, and deliveries
Wastes, as rejections, spoiled work, etc.	Sales costs
Manufacturing costs	Earnings and dividends

Within each department graphs can be kept by means of which the operations of the department are shown in greater detail. The purchasing agent, naturally, will find it helpful in placing orders to have available curves showing the market price of certain commodities and the amount consumed in his plant. The sales manager plots the total volume of orders, the various territory volumes, and the various commodity volumes, together with the prices secured. The advertising manager will devise graphs showing the inquiries and business secured by different advertisements and mediums, and the production in orders of each particular letter of his follow-up. These illustrate only meagerly the many uses possible.

Do you possess information complete enough and detailed enough to give you the exact knowledge needed in your work?

Think over the decisions held up or avoided or guessed at because sound information was not had, and make note of what sources, specified in the lists to which reference is made above, you do not now utilize. What additional sources of information could you make use of to good advantage?

Graphic Presentation of This Material

What have you done in presenting this information graphically? What could you do?

The equipment required for this purpose need not be elaborate. A set of drawing instruments, a flat-topped desk, ink, and paper comprise the essentials. In preparing curves, the cross-ruled paper kept by stationers for this purpose is to be advised. This paper can be had in various sizes and rulings, the smaller squares being more suitable for finer divisions and accurate work. Scales appropriate to quantities shown must be selected and in addition the scales themselves should be brought into such relations with each other as will present the particular data with accuracy.

The system may appear somewhat complex at first because only after a time will you have selected the essential facts of your business and acquired the facility to read at a glance these facts when compressed into graphs. But since such selection of essentials can be made and such facility of interpretation developed, the graphic method constitutes a very real aid in the mobilization of business.

"Given the organization," declares Dwight T. Farnham, "the executive who has his business before him—as a modern general has his battlefield before him accurately mapped to scale—is much more likely to predict the outcome, and to realize the outcome he desires, than the man who depends upon an uncorrelated mass of recollections and upon his intuition. And the executive who, like the modern general, is prepared is the one who will win his fight upon the battlefield of business."

PART VI

PERSONAL DYNAMICS

The thoroughly healthy person is full of optimism; "he rejoiceth like a strong man to run a race." We seldom see such overflowing vitality except among children. When middle life is reached, or before, our vital surplus has usually been squandered. Yet it is in this vital surplus that the secret of personal magnetism lies. Vital surplus should not only be safeguarded, but accumulated. It is the balance in the savings bank of life. Our health ideals must not stop at the avoidance of invalidism, but should aim at exuberant and exultant health.—The Life Extension Institute.

CHAPTER XVI

PHYSICAL ENERGY

Maximum vitality and maximum efficiency are tied up with each other.—LUTHER GULICK, M.D.

Pushing the Project Through

The last five chapters have considered the more strictly intellectual aspects of business management—how to evolve constructive ideas, become a practical thinker, cultivate a sound foresight, and utilize graphic methods in order to decide more quickly and more accurately. These to the profit-seeker constitute important matters, no doubt. Business is not, however, merely an intellectual occupation, but a game, a battle, in which the man who wins must strive with every faculty tuned to concert pitch.

“The pressure all the time is severe,” declares President Vanderlip of the National City Bank. “and at times of stress or crisis it becomes pretty nearly unbearable. A man must be able to stand up under it and not cave in at a crucial moment.”

The most feasible project remains barren unless put into practical operation, and it is thus no mark of business superiority to think brilliantly but cease at that. Effort must follow thought, and force it home.

Accordingly, this chapter and the next two chapters—Physical Energy, Power of Will, and Mental Economy—will consider the development and proper conservation of the business man’s personal force. The two parts which follow—“Personal Finance” and “A Man Among Men”—deal with forces outside himself which nevertheless powerfully supplement his own effort. With these various forces mobilized, the executive should be able to push his venture to a complete realization.

The Victories of Physique

Only in works of fiction do men with new ventures meet universal acclaim and live happily ever afterwards. In practice, as every battle-scarred veteran knows, new projects, whatever their merits, have to override a certain amount of opposition. The minds of men are more or less self-centered and bound by habit. These old grooves of thought are pleasant and self-interests remain primary, so who would not stone the prophet who advocates and attempts actually to secure larger output, less waste, financial reorganization, or prompter deliveries?

The philosopher may expound his conclusions, leaving men to accept them at leisure though it take a century or more; the scientist in his laboratory shielded from the world states calmly his revolutionary theories; but the business man in order to realize his projects must descend into the arena, there to meet thick-skinned, robust personalities face to face and force them to a quick decision. This requires energy.

The star salesman after a few days' indisposition finds that his sales have slumped; he calls these "off days" and diagnoses his case as "lack of pep." This same quality, physical vigor, is likewise essential for department heads and chief officials, and those conspicuously successful in handling men have possessed it in abundance.

The magnificent breadth and depth of Bryan's chest and his superb vital organs are largely responsible for the national influence exerted for years by this not above average intellect. Henry Ward Beecher, Charles Spurgeon, Phillips Brooks, were men of splendid physique and vitality. Cyrus McCormick to the despair of his employees was like a great engine that never tires; Charles E. Hughes, as his secretary tells us, "goes at a new piece of work like a hungry man at a meal;" and Theodore Roosevelt has been described as "a steam engine in trousers."

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Men of energy plus, dynamic, aggressive, push their ideas to completion. Such men are positive; motors not trailers.

The Wastes of Below-Par Condition

The average man by no means possesses in full measure this energy, this basic physical vigor.

In our country the annual sick list reaches the enormous total of 3,000,000 persons ill all the time, half of whom ought not be sick at all and would not if simple and known methods of prevention were utilized. Over 600,000 human lives are needlessly sacrificed to disease each year, which amounts to 6,000,000 every ten years and 60,000,000 in a century.

Within the last thirty years there has been an extremely large increase in the mortality from nearly all the most deadly and incurable chronic disorders. Seven great scourges: consumption, pneumonia, diseases of the kidneys, cancer, apoplexy, diseases of the heart and blood vessels, and nervous disorders, destroy one-half of the 1,500,000 who die in the United States annually, while typhoid fever and influenza, two of the most common and most dreaded of acute diseases, together kill less than three per cent. Cancer kills three times as many as typhoid fever, more than apoplexy, three-quarters as many as kidney diseases and pneumonia, and half as many as consumption.

Acute maladies come from without; they attack us from some foreign country, neighboring city or neighbor's house. But these chronic maladies are the result of errors in personal habits or unwholesome conditions of life which pertain to the office, the home or other immediate environment. The chronic maladies which are devastating the race, which have diminished the expectancy of life for those over forty years, and which within the next half century unless checked will decrease to a marked degree the average longevity, are simply the result of vicious seed sowing in erroneous personal habits. Especially is

this true in regard to habits pertaining to diet and harmful indulgences, the evil effects of which the public know, although the knowledge has little appreciable effect in lessening these unwholesome practices.

Overlooked Resources

Both body and brain, in consequence of the conditions specified, function far below their maximum.

"Most of us feel," says William James, "as if a sort of cloud weighed upon us, keeping us below our highest notch of clearness in discernment, sureness in reasoning, or firmness in deciding. Compared with what we ought to be, we are only half awake. Our fires are damped, our drafts are checked. We are making use of only a small part of our possible mental and physical resources."

We are in reality but half-men—battleships which never fire a broadside, splendid race horses at donkey speed, farms given over largely to weeds, heirs camping upon the outskirts of their rich inheritance.

Since the seeker of profits seizes upon every rich opportunity and tills it, he should recognize as fertile fields these unused resources within himself.

Were these preventable diseases checked, the saving to the nation in chronic invalidism and in the productive value of lives would not fall short of \$1,500,000,000 annually; the moral benefits are incalculable. Men would live upon a higher plane. Sickness should be regarded in its true light as a retarder of energy, a bar to advancement, and a crime committed against the full-men we ought to be.

"A sad commentary on the low health-ideas which now exist," says Irving Fisher of the Life Extension Institute, "is that to most people the expression '*to keep well*' means no more than to keep out of a *sick bed*."

The Roosevelt Conservation Commission on National Vi-

tality concludes that over fifteen years are lost to the average life through lack of application of knowledge which already exists but which simply has not been disseminated and applied. The business man wants to add these fifteen years to his life and throughout his entire career to attack each day's work with exultant vitality. He is interested in programs of health culture as a means to that end.

To war against "off days," sickness, and disease is to war against incompetence, poverty, and waste.

To practice assiduously the rules of right living is to exalt energy, force, personal power. "Give me health and a day," says Emerson, "and I will make the pomp of emperors ridiculous."

What Shall Our Physical Ideals Be?

In mapping out a practical program the business man commonly is confused by the variety of "cults" and "isms" which, directly or indirectly, have to do with health and healing. They spring up in the night, offer him the most wonderful remedies (usually for a substantial consideration), with diagrams and advice much of which is directly contradictory and but little of it valuable.

Moreover, there are those strong and virile people who laugh to scorn any and all rules, whether prepared by charlatans or sober medical bodies, eating and drinking and working in utter disregard of all save their own sweet wills. In reality these are physical spendthrifts, to whom or to whose children a day of reckoning will come. In the meantime, however, they prove a stumbling block to the earnest health seeker.

In estimating the value of any plan of health culture, one must keep perspective. Sim D. Kehoe of Indian club fame died of consumption; Dr. Winship, a lifter of great weights, died of prostration; a famous muscle-maker of New York was obliged to seek health in California because intent on de-

veloping muscle he had overlooked lungs, heart, and stomach.

Physical training is one thing; the care of the body quite another.

The business man is not interested primarily in knotty biceps, giant legs, nor the ability to run a hundred yards in ten seconds flat. His ideal is not to be a second Sandow, or Gotch or Jess Willard, his aim, not to break records but to fit himself for efficient work. Vitality is what he seeks, the development of lungs, heart, stomach, liver, and kidneys in order that he may forge ahead in business.

Sources of Physical Energy

There is nothing particularly mysterious about energy; it is simply the result of food and air burned inside the body. Rapid oxidation means vigor, non-oxidation means death.

The average human body every hour produces heat sufficient to raise two and one-half pounds of water from the freezing point to the boiling point; the same amount of heat that could be produced by burning two-thirds of a pound of coal. In doing this the body consumes itself at the rate of one-eighteenth of its weight every twenty-four hours. If this consumption is to continue vigorously and incessantly, the outgo must be balanced by intake. The maintenance of such equilibrium is the purpose of food.

Food and Normal Diet

The proper amount of food is not to be measured by its bulk, since some foods are highly concentrated. The measure which scientists have adopted for stating fuel values is called a calorie—the amount of heat required to raise one cubic centimeter of water one degree, and the average sedentary worker needs about 2,500 calories per day.

This amount of food should keep a person in normal weight, a condition which represents good daily manage-

ment and argues well for long life. Insurance companies have learned that young men who are underweight do not constitute good risks and that after middle age overweight is a real menace to health, either by reason of its mere presence as a physical handicap or because of the faulty habits of living that are often responsible for its development.

Underweight and overweight both have diets and regimens, so that no mysterious or elaborate "systems" or drugs are needed. A man should consult such food tables as are given, for instance, in "How To Live,"* and, after determining the amount which keeps him in favorable condition, should vary his intake according to the seasons and the kind of work he does.

The Three Chief Classes of Foods

The three chief classes of foods are protein, fat, and carbohydrates. Protein—for example, the white of eggs or the lean of meat—is in the main a tissue builder, serving for the growth and repair of the body. Fats and carbohydrates are exclusively fuel foods, containing carbon as their essential element. Butter, sugar, nuts, and cereals are some of the commonest forms of these foods.

A diet deficient in protein permits the body to waste away. If too abundant in protein, the liver and kidneys are overworked and putrefaction, with its attendant ills, is liable to take place. The correct proportion, stated in calories, is about one to nine. Of the 2,500 calories required by the average sedentary worker, 250 calories should be protein and 2,250 fats and carbohydrates.

A most serious error in the average diet is the excessive proportion of protein consumed. This is usually due to the extensive use of meats and eggs, although the inclusion of fish, fowl, shellfish, cheese, peas and beans in undue amounts would

*See page 26.

lead to the same result. The average business man, it is safe to say, consumes from two to three times the proportion of protein he should.

Food Selection and the Appetite

The need is for a better balanced ration; and this, in turn, can be secured through the use of the food tables already mentioned. It is true, of course, that the selection of food according to these tables is apt to impress one as artificial, and not a few decide, "Give me what my appetite calls for. It knows best." The artificialities of a modern meal, however, its appetizers, relishes, condiments, dainties, numerous courses and variety in methods of cooking, have pretty effectually weaned the natural appetite from its post of authority and made it largely a creature of education and rather bad habits. This degenerate thing is no safeguard against the allurements of a skilled chef, the confectioner, the tobacconist and, it must be confessed, the bartender.

Restoring the Natural Appetite

Nevertheless, the appetite under normal conditions is the system's call for food and also its promise to digest and assimilate properly what is eaten in response to this call. Under the proper treatment it will become more natural and better able to assume its normal function; and this result will prove exceedingly helpful to the non-specialist in selecting the right foods and the right amounts. The following suggestions will be found of value.

Eat only when hungry. The demand for food should come from within, not from a clock, a waiter, or a confectioner's window.

The "all gone" feeling which may creep upon one is commonly not the organism's call for food but an irritation produced by the contact of the stomach's inflamed walls. Because

it distends those walls, food relieves the condition temporarily but, since the irritated linings really constitute a warning against food, a drink of water is the right remedy.

Meals at frequent intervals, particularly the indiscriminate indulgence in soft drinks and confectionery, allow the digestive organs no time for rest and recuperation. The stomach is a muscular sack which like any other muscle grows weary if overworked.

A condition of hard physical labor continued to the hour of eating or of some serious mental disturbance, such as grief, unfits one's system to care for a heavy meal.

In general, a meal should be eaten when the digestive organs are insistent and ready to work.

Masticate thoroughly. It is an error to suppose that swallowing food is synonymous with nourishing the body. A piece of steak taken as food, so far as its having any nutritive value is concerned, remains just as much outside the body when it is in the stomach as it would be lying on the back of the hand—*unless* it be so changed by digestion that it can be absorbed into the blood and assimilated by the cells of the body. The man who bolts his food should not overlook this fact.

How Thorough Mastication Aids the Digestion

In dealing with starchy food, the mouth is a real organ of digestion supplying the saliva that is essential to proper digestion. Insufficient saliva mixed with the food results in imperfect digestion of the starchy substances.

The saliva is alkaline, hence most natural foods, being of an acid flavor, should be retained in the mouth a sufficient length of time to become more or less alkalized. This is especially true in the case of persons suffering from sour stomach, etc.

Mastication liquefies the food and in this liquefying of food in the mouth, its flavoring substances will stimulate the taste

buds at the base of the tongue. This gives the stomach and other digestive organs an advance message of the kind and amount of the digestive juices required, which preparation is a great aid to digestion.

The gastric juices penetrate solids at the rate of only one-twenty-fifth of an inch per hour. Since the stomach, unless it has become thoroughly exhausted with previous efforts to empty itself, will not allow solids to pass its portals, insufficient mastication must surely delay the process of digestion.

When, in consequence of proper mastication, all food is tasted before being swallowed, the appetite gives warning whenever a sufficient amount of food has been eaten. Thorough mastication is thus a sure cure for overeating.

The more one chews his food, the more natural becomes his taste and appetite. The over-seasoning of food, in order to make it relishable even when bolted, and the excessive use of meat and eggs which can be eaten rapidly, are avoided when through proper mastication taste has been made reliable in the selection of food.

Thorough mastication means giving up the habit of forcing food down. Chew the first three mouthfuls of a meal until swallowing becomes involuntary and the slow pace thus established will in time come to care for the rest of the meal without further thought.

Eating when hungry and masticating thoroughly do not require the giving up of all things that taste good. It is true in many cases that sacrifices have to be made but the net result is not to diminish but to increase the enjoyment of food.

Air as an Energizer

In the search for best methods of increasing the output of physical energy, air oftentimes impresses one as being too much of a "nothing" to deserve serious consideration. Yet while air is invisible it nevertheless is a real substance, one cubic

foot of it weighing 564 grains. It has a definite composition, which is changed by its being breathed.

The following table shows how breathing changes the air's composition:

Per cent. of volume	Entering	Leaving
Oxygen	20.26	16.00
Nitrogen	78.00	75.00
Water vapor	1.70	5.00
Carbon dioxide04	4.00

What does this difference signify? Simply that within the lungs changes vital to life are constantly taking place—oxygen absorbed into the blood, carbon dioxide and water vapor expelled.

Body and brain are but myriads of tiny cells, furnaces in which food and oxygen unite to form the vital fires of life. Air is thus a true energizer. Our food, however well digested and assimilated, without oxygen is just as useless as coal without draft in a furnace.

Invigorating versus Devitalizing Air

Oxygen is a vital principle in air, and its removal means vitiation. The lungs throw off 3,000 gallons of poison air per day, every pint of which will spoil for breathing purposes an entire barrel of pure air. In consequence, the air in an ordinary office should be changed from four to six times an hour.

The enemies of pure air, which in the office one must commonly guard against, are gas jets, tobacco smoke, and the old-fashioned feather duster.

An overheated room is enervating. As a usual thing a temperature not above 70°—even five to ten degrees lower for persons in good health—increases both mental and muscular efficiency.

Stagnant air means poison breathed in and breathed out successively. But when the air is put into motion, either by

natural movement or by artificial means, the poisons are swept away and air with its normal proportion of oxygen may take its place. The electric fan in an office has a distinct hygienic value.

Man is by nature an outdoor animal and though for purposes of business he may shut himself inside some office, he must never forget the call of the great outside. A farm to the business man as far as crops are concerned is usually an expensive joke, yet health is there. Lacking farms and even denied vacations year after year, men might still easily spend more time outdoors every day than they do.

A third of our time is spent in bed, in other words, eight hours daily in which to a greater degree than during the day we control our air supply. The open bedroom window, better still the window tent, the open tent, and the outdoor sleeping porch have proved themselves for generations so beneficial for sick people that all well people will eventually recognize them as worth while.

Making the Best Use of Air

The nose performs two important functions in breathing. Air entering the nostrils is strained of its dust particles and if below body temperature is warmed as it passes along the nasal cavity richly supplied with blood vessels. The too common practice of breathing through the mouth is thus doubly bad; and the gratification one might feel over the fact that a certain book entitled "Shut Your Mouth" has passed through several editions is tempered by the feeling that common sense should have rendered such advice unnecessary.

In natural breathing both chest and abdomen should expand and contract together. Chest breathing alone, caused by wrong habits or constrictions, such as a tight belt at the waist, is artificial and deprives the body both of its due volume of air and of the good exercise that comes from full, natural breathing.

The flat chest advertises to the world that its owner does not know how to breathe, that he has a predisposition to lung diseases, and that with a body half nourished and half suffocated he is prepared to do only one-half a man's work. These things surely are not the marks of an efficient man, and they can be avoided.

In ordinary breathing only about ten per cent of the lung contents is changed at each breath. Deep breathing alone, by causing the air to penetrate into the more remote and minute chambers, forces the whole lung into action, promotes liver and abdominal circulation, sets stagnant blood into circulation, favorably influences the blood pressure, and heightens the brain activity.

Air is an invigorator, a blood purifier or spring tonic which is without snare and delusion, a food without money and without price.

Bodily Poisons

When food and air combine within the body energy is liberated. So far so good, but oxidation while it results in energy also forms waste products. Fatigue poisons develop in the muscles and brain tissues, fermentation in the mouth, putrefaction in the intestines, and sundry other poisons, such as spoiled foods, alcohol, tobacco, and drugs, are introduced into the system direct.

Stupefied by one or more of these various poisons, the average person "cannot strike the pace he desires"; he lacks "pep," enthusiasm, ability to concentrate and push his work. While suffering from the irritation and melancholy induced by this poisoned condition, otherwise sensible men are guilty of explosions of temper and absurd judgments which shame their saner moments. Poison in brain and muscle is like sand in the bearings of a watch.

Headache powders, "cocktails," tea and coffee, stomach

bitters, sarsaparillas, liver pills and cathartics are swallowed in vast quantities by the victims of sluggish livers, bad teeth, constipation and intestinal intoxication, in the vain search for relief. Their blood is foul with poison and its purification depends upon proper hygiene, not the putting into it of ill tasting or bad smelling drugs.

Don't Increase the Handicap

It is essential first of all to exclude poisons from the body in so far as such a course is practicable. The eating of decayed food and the use of habit-forming drugs torment the body with unnecessary enemies.

It is true that alcohol is widely used and that not a few *believe* that it enables them to work more effectively. Yet scientific experiments have shown that in reality alcoholic beverages merely numb the sense of fatigue and so deceive the user. You cannot cheat Nature with a lead nickel.

The evidence as to smoking is not yet so conclusive as in regard to alcohol, but the indications studied are adverse. It is true that the nicotine contained in one cigar is small in amount and most smokers assert that they will stop smoking when it begins to hurt them. But experiments at the Pasteur Institute have shown that the long-continued use of very minute doses of poisons ultimately produces appreciable harm, and the claim that one will stop before being injured is rarely carried out. In practice, it is easier to abstain than to be moderate.

Mouth Sanitation

A second source of infection arises from the fact that the mouth is necessarily exposed to numerous bacteria and its powers of protection are inadequate. Food particles left between the teeth or on their surface putrefy under bacterial action. Cavities are caused in the teeth which harbor more

bacteria. The gums are also liable to infection, which as it progresses destroys the membranes that hold the tooth firm in its socket. Such gum infection, it is claimed, causes the loss of more teeth than does decay.

This infection, however, is not limited in its evil effects to the mouth. The bacteria harbored in a decayed tooth or diseased socket under a tooth later migrates to the blood, attacking the tissues in which they can thrive best. In this way the evils of decayed teeth and infectious gums menace the entire system.

Scrupulous cleanliness is the best antidote to mouth infection, and in general is all that is required. Teeth, tongue and gums should be cleaned night and morning by the brush, applied with a rapid rotary movement. Tooth powders and paste and mouth washes, properly prescribed, are advisable, as is also the periodic examination and cleaning of the teeth by a dentist.

Constipation, the Anti-efficiency Malady

A more serious danger, in truth it might well be called the worst of all anti-efficiency maladies, is constipation. The intestinal contents if too long retained putrefy. The poisons thus produced are absorbed into the blood and a series of ailments result.

"It is my firm conviction," said Metchnikoff, the eminent Russian scientist, "that if we could preserve a freedom from intestinal bacteria, we would prevent most of the diseases that can be traced to the action of these germs, which include chronic heart disease, arteriosclerosis, and most kinds of headaches. Not only that, but we would greatly prolong life, because the greatest cause of old age—the absorption of bacterial poison in the intestines—would be non-existent."

The man who accepts constipation as a matter of course to be dealt with by a cathartic ought to realize that its con-

stant and cumulative tax often ends in grave consequences and that its elimination will probably do as much as any other one thing to add zest to the day's work. For some people it is the greatest bodily ill they have to suffer.

The best regulators of the bowels are foods. Prunes, figs, most fruits except bananas, fruit juices, all fresh vegetables, wheat, and whole grain cereals are laxative in their effect. They either stimulate a flow of juices into the intestinal tracts or their residue constitutes a bulk which the intestinal muscles may grip. On the other hand, milk, corn-starch, white of egg, and white wheat flour have a constipating tendency; they are so fully digested that the intestines are left without bulk to work upon.

The drinking of cold water freely, especially before breakfast, both stimulates the digestive organs and tends to prevent that hardening of the intestinal contents characteristic of constipation. Six glasses every day, the old saying is. Allow the system its inner bath.

An excellent treatment for constipation, particularly for those who may prefer a diet which possesses insufficient bulk, is the use of wheat bran daily. From two to four tablespoonfuls of bran mixed in water or milk and taken before breakfast, or two tablespoonfuls taken with each meal in which bulky foods are not eaten, act as a water carrier and a sweep to the intestinal tracts. Agar-agar, a Japanese seaweed product, is recommended for the same purpose. It is to be hoped that the recent action of several manufacturers of breakfast foods in putting on the market the more palatable cooked bran will be followed by a great increase in the use of this simple and inexpensive remedy for constipation.

The culture of germs able to combat intestinal putrefaction is another remedy proposed. The drinking of sour milk or the taking of sour milk tablets is based upon the fact that the bacteria of putrefaction do not thrive in lactic acid, and if care

is taken to keep the favored culture alive and vigorous this method will do much good.

The kneading of the abdomen thoroughly constitutes still another effective measure. This practice has been developed by the osteopath into a skilled art, although practically anyone can perform such a kneading of the abdomen as will be a benefit to himself. Since this kneading derives much of its value from the action upon the large intestine, a knowledge of the location of this intestine and the direction in which its contents move, which can easily be gained from the diagrams shown in almost any text on physiology, is desirable as a preliminary.

The natural instinct to defecate if obeyed and made a regular habit is in itself one of the most simple and effective of health measures. Owing to the demands of civilized life this instinct is usually deadened through failure to exercise it regularly and can be restored to its normal sensitiveness only by a few weeks of special care.

Exercise and Energy

The man who is out for big success in business wants a condition of maximum energy, so that he enjoys tackling his work day by day, so that he radiates vigor and cheerfulness and spurs associates and subordinates to enthusiastic effort.

"To what do you owe your wonderful vitality?" Doctor Marden once asked Russell Sage.

"I never smoke, I never drink any liquors, I retire early and get up early, and take care of myself in every possible way. Why should I not be healthy?"

It is a question whether that program was not merely one of resisting decay. Russell Sage had no doubt unusual natural vitality but for most executives something more is needed if they are to reach their maximum. In consequence, they must needs exercise as well, since the muscular system,

along with food, air and poison, has its influence upon energy production.

When a muscle contracts, the veins are compressed and blood laden with waste is forced toward the heart; when it expands, the arteries conveying blood from the heart widen and a freer circulation ensues. The amount of blood which flows through a muscle during exercise is greater than when that muscle is at rest; in fact, experiments prove the flow during exercise to be three times as great.

Cold hands and feet are the ear-marks—pathological tell-tales—of a sedentary life; improved circulation—an abounding vitality reaching to all parts of the body—is the indicator of health and exercise.

Increased circulation quickens the normal respiration. The amount of oxygen taken into the lungs and carbon dioxide given out is increased during active physical exercise from 100 to 600 per cent. The flat-chested, devitalized man is made by exercise to breathe more rapidly and more deeply, and thus corrects his bad physical condition.

The increased amount of heat formed in the muscles during exertion brings more blood to the surface and stimulates the sweat glands into activity. "In the sweat of thy face shalt thou eat bread," says the Good Book, advice valuable to financiers as well as to manual workers. The latter exercises at his work, the former must supplement his mental work by physical exercise.

In the digestive organs the enhanced blood supply relieves abdominal congestion with its consequent train of headache and depression, sharpens the appetite, quickens the digestion, and promotes the assimilation of food.

The resultant, that which primarily is sought by the business man, is an improved quality of brain work. The vital organs when they have been induced to normal action through systematic exercise contribute to clearness of mind, calmness

of judgment, serenity, and poise—the marks of an efficient mind.

“Spectatoritis” a Serious American Disease

These benefits of exercise are lost to great numbers of business men either because they believe themselves too busy or have the wrong idea of what constitutes exercise. The plea of “too busy” will scarcely bear analysis since the question is not how many hours do you work but what you get done. The man who through exercise is able to attack his work with zest places to his credit more work and of better quality than his non-exercising competitors.

The wrong idea of what constitutes exercise is strikingly illustrated in the great American game of baseball. Eighteen men, experts highly trained and paid, do all the playing while 15,000 look on. As Professor Ross aptly puts it, *spectatoritis* has become a most serious American disease. In golf, tennis, football, boating, polo, hockey, boxing, racing and track events, the same criticism is justified—the American is so upset with the mere desire to win that he demands the salaried expert and thus loses the positive benefits that would accrue to his own body if he himself, no matter how amateurishly, would only take part.

Six Essentials for a System of Exercise

In devising a system of exercise for his own use the reader will find helpful the following list of essentials. Detailed explanations and suggestions, on account of lack of space, have necessarily been omitted but these are well set forth in the books to which reference will be made.

Organic vigor, not simply muscular strength, is the aim. The exercise which the business man needs most is that which tones up his digestive organs, lungs, heart, liver and kidneys. He leaves it to gymnasts or prize fighters to develop enormous

muscles, since with him brain counts much and brawn little.

All around development of the body is superior to specialization. The professional athlete is out to break records, even though, as is usually the case, this leads to overdevelopment in some one direction. He is a physical specialist, but this the business man is not.

The exercises selected should be corrective in nature. Should he look himself over from the standpoint of physical perfection the reader will probably discover various defects. Perhaps his shoulders are round and his chest flat, or it may be his abdomen is disproportionately large and his legs slender. In any case there are corrective exercises devised to remedy this particular defect, and these are of the greatest importance to him.

Exercise which is agreeable is much to be preferred. Going through a series of exercises in a perfunctory way is beneficial, notwithstanding the commonly accepted view to the contrary. But not so beneficial as when the movements are done enthusiastically. Interest in the exercise, whatever it may be, is a mental as well as a physical recreation.

Moderation is the ideal in exercise. The muscular tissues during contraction are constantly being destroyed, but under normal conditions the process of replacement keeps even pace. However, the too rapid destruction of tissues which occurs during violent exercise overtakes the system of non-athletic business men and the various acids and poisons which accumulate in the muscles cause soreness and a general sensation of fatigue. Such exercise is a detriment, not a builder of vitality. The proper plan is moderate exercise taken with regularity.

Simplicity is essential in any scheme of exercise. The complaint of many a hard-worked business man upon being urged to exercise is, "I haven't the time and besides I cannot afford it." Without doubt he is sincere in his belief; exercise to him

means a half day trip into the country with a dribble of bills for carfare, golf balls, caddy hire, club fees, refreshments, dinners, etc., or perhaps a gymnasium with elaborate apparatus and trained instructors ready to direct each movement. The benefits, in view of the burdens, do not seem worth while.

A full array of paraphernalia with skilled instructors, no doubt is desirable, but the lack of it need deter no man from exercising.

Walking brings many muscles into play and is an outdoor exercise as well. Instead of waiting for street cars or depending upon an automobile for every move, one should make it a point to walk whenever possible. Take luncheon several blocks from the office and in going home drop off the car some distance away and finish the journey on foot.

A system of exercises requiring no apparatus whatever can be devised, and made so simple that one can practice at home, at the office, or even on his walk.

Maintaining Good Posture

A suggestion for the building of vitality is the maintenance of good posture, which although so simple, possesses decided effectiveness and can be put into practice whenever one sits or stands.

Persons seated at desks very commonly assume sprawling attitudes, the spine curved, the shoulders hunched up, the elbows set forward and the weight resting on the buttocks. When walking, their posture is likewise bad; the shoulders are rounded, the arms hang in front of the body, the head thrusts forward, the chest is depressed and the stomach protrudes.

This incorrect posture when habitual produces a stagnation of blood of the abdomen in the liver, which is followed by feelings of despondency and mental confusion, headache, coldness of hands and feet, and chronic fatigue or neurasthenia. Moreover, the physical slouch is more than likely to be a mental

and moral slouch, although the rule may have its notable exceptions.

Merely holding the body erect—chest out, head back on the shoulders, trunk firm, weight on the toes—involves active and easy control of many muscles. The business man who forms the habit of proper posture can give himself, in the course of the day's activities, almost as much physical training as he could obtain in a gymnasium. The exercise is gentle. He can keep it up all day long without danger of overdoing and without in the smallest degree interfering with the duties of his position. Sandow, the famous muscle builder, remarked years ago that anyone can obtain sufficient exercise merely by flexing his own muscles if he will do it systematically.

Says Doctor Fisk, "The man who stands, walks, and sits erect, who treads the earth as though unafraid, develops a self-respect which commands respect from others; he acquires a certain habit of alertness, of looking the world and its troubles squarely in the face."

Lessons from Our Army

It is evident that physical energy—whatever may be the reader's own condition—is not a matter of chance but is directly under his control and can be increased in a perfectly definite and practical way by those who care enough to do so.

Significant light has been cast on this subject in recent months by the nation's experience in fitting its men for war. A large percentage of the drafted men—nearly one-third of the entire number drawn in some communities—had to be rejected for ailments or physical weaknesses which were largely preventable. These were merely average young men, all of them in the period of greatest vigor, it is true, but representing the entire population. What is even more significant for our purpose is the large number of officers, experienced and highly trained men, who had to be dismissed, some

of them from positions of great responsibility which they were especially qualified to fill, because of physical weakness. These men were *executives*, their duty the direction of other men in circumstances of unusual strain. They had all received thorough physical training at the military academy—they were “fit” when they began their executive careers—but some way or other they had developed weakness and now at what should have been the moment of greatest usefulness, they were not able to carry the exceptional strain brought by the exceptional opportunity; they had to drop out of the line.

On the other hand, these army records are full of encouragement for men of the type of our executives. In the officers’ training camps hundreds of men over thirty years of age, largely from executive positions in business life, were built up through scientific and thorough instruction to a health and vitality of which they had not dreamed.

What Uncle Sam’s discipline did for them, what Muldoon’s training has done in a more limited way for his patients, cannot the executive who has not had this training but who takes his own career seriously, do for himself? Responsibilities held him at home in the second line of defense. All the more need, therefore, that he make himself as fit for carrying the responsibilities of business as those who went “over there.” They are back or coming back—and he with them wants to be a pace-setter in business.

Rules for Health Culture

The present chapter will aid in this direction. It has aimed to emphasize the physical resources unused within us and the practical measures by which to unlock them. It may now be summarized as follows:

I. FOOD:

Eat the amount that keeps you in favorable condition of weight.

Avoid overeating and overweight.
Balance the diet according to the proper proportions of protein, fats and carbohydrates.
Eat sparingly of meat and eggs.
Eat only when hungry.
Avoid indiscriminate eating and frequent meals.
Masticate thoroughly.
Do not bolt your food or cater to a depraved appetite.

2. AIR:

Breathe through the nose.
The open mouth represents bad hygiene.
Breathe deeply.
Keep free from shallow, rapid chest breathing, tight coats and belts.
Seek fresh air.
Avoid stuffy churches, tobacco-smoke rooms, gas jets, and dust.
Be outdoors whenever you can.
Close confinement indoors is unnatural and often is avoidable.

3. POISON:

Choose non-poisonous foods and drinks.
Avoid drugs, alcoholic beverages, condiments, and decayed food.
Keep the mouth clean.
Adopt measures to prevent infected teeth, tongue and gums.
Drink water freely.
Do not neglect the inner bath.
Evacuate thoroughly, regularly, and frequently.
Avoid cathartics but adopt natural measures.

4. EXERCISE:

Develop primarily the vital organs.

Do not aim to become a muscular specialist.
Adopt corrective measures.
Avoid defects and one-sided development.
Exercise moderately but regularly.
Eschew violent or spasmodic exertion.
Observe a correct posture when you sit or stand.
Do not overlook the benefits of this and other simple forms of exercise.

EXERCISES

Walter Camp's Suggestion Exercises

Walter Camp, the famous developer of athletes at Yale, offers some advice on "How to be fit" which is useful to almost every man. He says:

Drink without eating and eat without drinking.
Warm feet and a cool head need no physician.
Dress coolly when you walk and warmly when you ride.
Your nose, not your mouth, was given you to breathe through.
Getting mad makes black marks on the health.
You'll never get the gout from walking.
Tennis up to the thirties but golf after forty.
Two hours of outdoor exercise by the master never yet made him over-critical of the cook.
Too many drinks at the nineteenth hole undo all the good of the other eighteen.
The best way to use the Sunday supplement is to stick it under your vest while you walk an hour against the wind and then come home and read it.
Many a man finds too late that his motor car has cost him more in health and legs than it has in tires and gasoline.
The men who chase the golf ball don't have to pursue the doctor.

Health Culture Chart

The rules for health culture of the present chapter have been conveniently listed as standards for your daily observance. Test Chart 16

HEALTH STANDARDS	SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.
<i>Food</i> Proper amount Balanced rations Eating when hungry Thorough mastication							
<i>Air</i> Deep breathing Being outdoors							
<i>Sleep</i> Proper amount							
<i>Poison</i> No drugs, alcohol, or condiments Mouth hygiene Water drinking Thorough evacuation							
<i>Exercise</i> Vigorous outdoor ex- ercise Setting-up drill Posture							
DAILY TOTALS							
WEEK ENDING . . . TOTAL CREDITS							

Test Chart 16—Health Culture Chart

proves useful as a definite check upon each observance from day to day, and when summarized at the close of the week not only permits ready comparison with other weeks, but enables you to survey your habits of living fairly and accurately.

In grading yourself, go over the chart at the close of each day: (1) credit yourself with a "1" in the proper space opposite each of the fourteen items you have conscientiously observed; (2) put a zero opposite the items violated or neglected; and (3) credit yourself with a " $\frac{1}{4}$," a " $\frac{1}{2}$," or a " $\frac{3}{4}$ " opposite each item partially observed. The various credits when added indicate your total for the day.

Fourteen credits represent a perfect score for the day, and 7 times 14, or 98, the correct observance of the health rules for a week. Since two credits should be awarded for general good behavior or the performance of something especially meritorious in health culture, the perfect score for the week totals 100 points.

Would not two curves which show graphically both daily and weekly health credits steadily rising as time goes on represent about as solid an achievement in personal management as you could make?

CHAPTER XVII

POWER OF WILL

Will-power is the tap root of efficiency.

—CHARLES W. ELIOT

A Hard Drive Toward the Goal

In pushing an enterprise to its full completion, the business man encounters a considerable amount of hard, grinding work. "Nearly every man who develops a new idea works it up to a point where it looks impossible," says Thomas A. Edison, "and then he gets discouraged. That's not the place to get discouraged, that's the place to get interested. Hard work and forever sticking to a thing till it's done, are the main things an inventor needs.

"I can't recall a single problem in my life, of any sort," continued Mr. Edison, "that I ever started on that I didn't solve, or prove that I couldn't solve it. I never let up until I had done everything that I could think of, no matter how absurd it might seem as a means to the end I was after. Take the problem of the best material for phonograph records. We started out using wax. That was too soft. Then we tried every kind of wax that is made, and every possible mixture of wax with hardening substances. We invented new waxes. There was something objectionable about all of them. Then somebody said something about soap. So we tried every kind of soap. That worked better, but it wasn't what we wanted. I had seven men scouring India, China, Africa, everywhere, for new vegetable bases for new soaps. After five years we got what we wanted, and worked out the records that are in use today. They are made of soap too hard

to wash with and unlike any other in use, but soap just the same."

This incident illustrates very well Mr. Edison's remark that genius is not inspiration but perspiration, and his reasons also for the selection of *persistence* as the inventor's first essential. Men, once they have decided upon a course of action, must urge themselves forward with a certain pitilessness; they must possess driving power.

The Business of Mind Building

The struggle for business existence, in the last analysis, decides that those who substitute wishbone for backbone, either in themselves or in subordinates, shall be shunted into obscure places and their positions filled by persons of positive qualities. Men in business must stand for something, must champion it with emphasis.

"We have to 'sell' every man with whom we come in contact," declares one of these positive contenders in the business field, E. St. Elmo Lewis, "whether it be our value as a man or the brand of merchandise we offer, or the value of the service of our corporation, or even our opinion of himself."

In this process of reaching out from the control of self to the direction of others, mental domination is essential; the minds of these others must be impressed and success compelled. The projectors of the larger American enterprises and the ruling spirits within them today have brought to this task a certain ruggedness of personality, an imperious mold which brooks no opposition, a dynamic force which in the old days ruled over kingdoms and dukedoms and which in the men of tomorrow will spell success as heretofore.

Achievement such as this is denied the man who flies all too readily the white flag of surrender, who constantly dreads and nervously prepares for things which never will occur; the nonentity who has capitulated to the devil of fear. Negative

qualities inevitably yield negative results, positive qualities alone put business on the plus side of the ledger.

The business of rebuilding one's own mind—ridding it of fear, worry, and all other negative qualities; cultivating courage, optimism, power of will, mental ascendancy; directing it continually successward—is one of the most practical projects one can undertake.

Bizarre Schemes for Developing the Will

Certain "mental supremacy builders" have hit upon the very patent fact that the mind admits of development, and by mystifying the process with such vague terms as "etheric anticipation," "psychic magnetism," "electrifying the divine telepathic manifestations," "ten diamond rules of self-power," and "eleven detailed processes for developing the powerful eye," have heralded themselves as great discoverers, even as "scientists."

"This Course," we are told in a recent prospectus, "absolutely tells you how to generate your Mind Force and nerve energy; fine course, isn't it? Now I guess that you begin to see that it is not one of the ordinary courses; the fact is it is The Course. By understanding the underlying laws which control Unseen Power you can develop your irresistible inner force and actualize your ideas of unlimited prosperity. . . . Fifteen Dollars down or by three monthly payments of Five Dollars."

Let the reader be assured that there is no such thing as a superadded "will-power," a sort of separate faculty which, as one of these persons would have us believe, can be exercised into amazing strength by gazing intently at knot holes, pin heads, or the end of one's finger. "To sum it all up in a word," says the most distinguished psychologist America has yet produced, William James, "the terminus of the psychological process in volition, the point to which the will is

directly applied, is always an idea," and the essential phenomenon of will, he further states, is merely the effort of giving attention to this idea. Willing is thus a process of thinking, and cannot be separated from it.

What Will-Power Really Is, and How Cultivated

This very matter of fact conception of will has to be accepted as fundamental in all sound attempts to increase its power.

"The key to success in the line of all mental and spiritual achievement," says Professor Dewey, "is control of the attention."

"Concentration of attention is the basic principle which lies at the very foundation of our every-day work," says Professor Seashore.

"The habit of quick and concentrated attention is the most valuable of all mental qualities," says President Eliot, "being the main source of the productiveness of extraordinary workers, and in less degree of common men and women. In all walks of life the efficient man is the thinking man who has a firm will."

To the reader intent on mental domination, the "attention" may at first thought appear as a miserable makeshift, a colorless shadow of the iron resolution he seeks. How can it make him strong, "red-blooded," of inflexible determination? *Because ideas are dynamic.* When Cæsar declared, "I am linked to my determination with iron bands; it clings to me with the tenacity of fate," we see, psychologically speaking, simply a mind attending to a certain idea which, due to its dynamic nature, tended to express itself in action. That this action was of the history-making sort does not alter the essential nature of the process. Remembering then that any such idea which prevails in the mind normally is followed by motor effects, be these the wrinkling of the brow or the con-

quest of empire, we reach the heart of an inquiry into will-power and its development by this question: By what process does the thought of any given object come to prevail stably in the mind?

Fires Which Are Damped

Should the president of a corporation walk through his organization accosting the first dozen of his subordinates with this blunt question, "What feature about this business are you permanently and vitally interested in?" the answer if truthfully given would be illuminating and, it may be added, not a little disconcerting. Several would agree it was the pay check, others would confess it was the five o'clock signal, some would be obliged to admit that they could think of nothing in particular—all in all, evidence of a marked deficiency in those big vital interests through which a man forges ahead in business.

"I remain convinced," says the shrewd Englishman, Arnold Bennett, who observed us at first hand, "that the majority of decent average conscientious men of business (men with aspiration and ideals) do not as a rule go home of a night genuinely tired. I remain convinced that they put not as much but as little of themselves as they conscientiously can into the earning of livelihood, and their vocation bores rather than interests them."

Here is the fatal defect which dampens our fire, palsies our energy, short-circuits the will—lack of interest in what we do.

The Ruling Passion

This lack of interest is all so unnecessary. Business is the greatest of games, more subtle than chess, more spectacular than polo, more thrilling than war, more substantial than politics, more human than preaching, more real than philosophizing, more enduring than creeds which have made fanatics

of men. "If a man does not find romance in business," declares Andrew Carnegie with much truth, "it is not the fault of the business, but the fault of the man."

Every business man can and should have a ruling passion, a luminous conception which draws him on and makes the humblest duties throb with a profound significance. To Walter Cottingham it is the ideal of building up the world's top-notch sales organization; to Clarence M. Wooley the vision of homes and offices everywhere heated by Ideal Radiators; to Charles Schwab the dream of steel manufactured better than anywhere else at Bethlehem; to Cyrus McCormick the dazzling thought which flashed upon his mind years since when riding on horseback through a wilderness path, "Perhaps I may make a million dollars from this reaper," a thought so enormous, he said afterwards, "that it seemed a dreamlike dwelling in the clouds—so remote, so unattainable, so exalted, so visionary." Whether it be promotion, financial power, a perfected industrial organization, or a prominent niche in the Hall of Fame, matters little; what does count tremendously is that every man should put his whole soul into something, should nurture a ruling passion and tremble under the influx of its power.

A Mind Made Up, and Moving Forward

There is a time for indecision, it is true, in which the projects of a creative brain are passed under the cold scrutiny of reason; a period of inner questioning during which the search for facts goes on. When these more strictly intellectual processes have been completed, however, procrastination, indecision and vacillation must give way, that the mind brooding upon the selected project may bring it forth in power.

The first rule for building power of will, therefore, is selection. *This one thing I do.*

"If you only care enough for a result," says William

James, "you will almost certainly attain it. If you wish to be rich, you will be rich; if you wish to be learned, you will be learned; if you wish to be good, you will be good. Only you must, then, really wish these things, and wish them with exclusiveness, and not wish at the same time a hundred other incompatible things just as strongly."

The Ruling Passion Supplemented

A ruling passion, such as has just been described, can and will bring about increased power. Even mediocrity temporarily under its sway has wrought mightily, as is proved by the ability of every crisis—fire, train wreck, panic, war, riot—to mold heroes from material which under ordinary circumstances is sadly lacking in hero stuff.

The occasion did it, we say. Well and good; but make every business day a great occasion. There is, literally speaking, no reason why executives at their desks should not toil as Greek gods. The occasion is as worthy, the man is as fit, and if only the stimulus logically inherent in the surroundings be applied, it, too, would be as adequate.

Under usual conditions, however, this stimulus comes in temporary pulsations, men rising only momentarily to their full mental stature, from which they quickly fall away. By what methods may a man avoid the trough and maintain himself more consistently upon these crests of achievement?

Yourself on Record—Cottingham's Campaign

A very practical method for the attainment of these ends is the setting for oneself of definite tasks, and the putting of oneself on record in connection with them.

In the spring of 1914 the tariff and currency legislation had rendered the business outlook uncertain, if not dismal. That able sales manager, Walter H. Cottingham, president of the Sherwin-Williams Company, made up his mind that the

tide was about to turn, and issued a memorable letter to all sales representatives.

"Forward Again," was his slogan. "The signs are unmistakable despite the pessimistic forebodings of a few," declared his letter. "This means that business men everywhere should place their shoulders to the wheel and add as much impetus as possible to the movement.

"Business is booming despite reports to the contrary, and it will boom more. In New York money is easier, which points out that people are regaining confidence. Every man should be interested and do what he can to make 1914 a banner year in business."

The Salesmen's Response

The president's letter, a message of optimism and resolution, was the first shot in the "Forward Again Campaign." This was followed up by bulletins, house organs, special meetings, and special prizes. Quotas were set, a "Forward Again" creed was drawn up, and application blanks bearing this declaration soon began to pour in upon the home office of the Sherwin-Williams Company:

February ... 1914

Mr. Walter H. Cottingham, President,
The Sherwin-Williams Co.,
Cleveland, Ohio.

Dear Mr. Cottingham:

I hereby make application for active membership in the "Forward Again" Campaign, and agree to do my part in living up to the creed. My dues will be paid in increased business, and I wish to be eligible for the President's certificate. I shall show my colors by wearing the Brighten Up Crusade Pennant.

Name.....

Office.....

Territory.....

The men thus definitely set for themselves a task, and a task set for performance becomes in turn the stimulus for its accomplishment.

The campaign resulted in a complete victory. "We went up against the biggest February business, which was last year, and the second biggest March in our history," said Mr. Cottingham in summarizing for the final issue of *Marching News* the results attained. "Those records were made under favorable business conditions. We have come through the campaign with all records for February and March in the Trade Sales Department completely smashed and a gain to the first of April."

Keeping One's Goal in Sight

The executive at his desk may set quotas for himself in various ways—a thousand-dollar increase in sales this month, a desk cleared off by ten o'clock, four more reports checked over before luncheon. The man who plans his work in so doing sets quotas for himself, which is an additional reason why planning speeds production.

Keeping the record, quota, or schedule plainly in sight increases its power as an incentive. Cecil Rhodes, the empire builder of South Africa, in his office constructed a large map of the continent, coloring red the great polygon between the Transvaal and the Zambesi, and before this map he would stand expatiating upon the vastness of the country and, running his finger northward, explaining how Africa was to be linked up and thrown open by his Cape-to-Cairo telegraph and railway—nerving himself in this way for his far-reaching project.

The graph showing how production in our factory has mounted steadily upward for seven years, the series of items being checked off on our day's schedule, the well-filled basket labeled "Finished Work" upon which our eye rests with

satisfaction as the afternoon wears on, these are things that tend to keep the desired idea dominant in the mind.

These set tasks, this being on record before others and making promises to ourselves of what shall be done, have a result-getting value. They stiffen the will.

The Atmosphere of Achievement

The man who accomplishes is like a dynamo, vibrant with his major purpose. As a careful husbandman, he shuns an environment which would dissipate his energy and strives to build up, in so far as possible, surroundings of helpful nature, conducive to his progress. On every hand are mottoes, poems, magazines, books, people and places positive in their impress and stirring in the onward impulse which they inspire. To these things a man should cleave for they form an atmosphere of achievement which moves him steadily forward. These items specified can be supplemented most effectively by persistent affirmation made by the person himself.

A salesman, "one of the best I ever knew," says Mr. Holman, of the National Cash Register Company, who relates the incident, prepared the following "catechism," as he called it. He used to put himself through it every morning before starting out. Oftentimes he repeated it aloud if he had the opportunity. The questions he would repeat in a quiet tone, but the answers he would pronounce with all the earnestness of which he was capable.

His catechism ran somewhat as follows:

Am I working for a good house? YES!

Has my house the reputation and prestige of being one of the best in its line? YES!

Have we made hundreds of thousands of sales like the sales I am going to make today? YES!

Have we an enormous body of satisfied purchasers? YES!

Am I selling the best goods of the kind made anywhere in the world? YES!

Is the price I am asking a fair one? **YES!**

Do the men I am going to call on need the article I am selling? **YES!**

Do they realize that now? **No!**

Is that the very reason I am going to call on them—because at present they don't want my goods, and haven't yet bought them? **YES!**

Am I justified in asking a prospect's time and attention to present my proposition? **BY ALL THE POWERS, YES!**

Am I going to get into the interested attention of every man that I call on, if there is any earthly way to do it? **YES!**

Am I going to sell every man I call on today? **YOU BET I AM!**

The spirit of such positive affirmations carried throughout the day will render a man almost invincible.

This recipe for mental rejuvenation is exceedingly simple: Stoutly, sincerely, everlastingly affirm that the things desired you do now possess. Such affirmations after a time mold a will dynamic in its positiveness.

A Man's Opinion of Himself

Needless to say, the efficacy of such affirmations as have just been described depends in large measure upon whether the affirmer himself believes them true. If he does not, their power in rebuilding his mind becomes seriously lessened; if he does, we are faced with this question—How good an opinion of himself should a man hold?

The man of merit who underrates his worth puts his companions at their ease, since he himself is so modest and unassuming, observed Adam Smith long since in his *Theory of the Moral Sentiments*. "If those companions, however," warned Smith, "have not both more discernment and more generosity than ordinary, though they may have some kindness for him they have seldom much respect; and the warmth of their kindness is very seldom sufficient to compensate the coldness of

their respect. Men of no more than ordinary discernment never rate any person higher than he appears to rate himself. He seems himself doubtful, they say, whether he is perfectly fit for such a situation or such an office, and immediately give the preference to some imprudent blockhead who entertains no doubt as to his own qualifications.

“Though they should have discernment, yet, if they want generosity, they never fail to take advantage of his simplicity, and to assume over him an impertinent superiority which they are by no means entitled to. His good nature may enable him to bear this for some time; but he grows weary at last, and frequently when it is too late, and when the rank which he ought to have assumed is lost irrecoverably, and usurped, in consequence of his own backwardness, by some of his more forward, though much less meritorious, companions.

“A man of this character must have been fortunate in the early choice of his companions if, in going through the world, he meets always with fair justice, even from those whom he might consider his best friends. A youth, too unassuming and too unambitious, is frequently followed by an insignificant, complaining and discontented old age.”

Faith in Self

The conclusions reached by the father of political economy, a shrewd Scotchman who had studied at Oxford and traveled on the Continent, when taken in connection with conditions prevailing now in the United States, certainly do not appear exaggerated. Self-depreciation is not enabling its possessors to forge ahead in business, whereas its opposite has advanced not a few mediocres to positions of at least fair responsibility.

The loud-mouthed blatancy, the swagger and the preposterous claims which often pass current as indicators of self-confidence, however, are spurious coins. Since they represent no good-humored inflexibility, no deep-seated determination, no

belief that capacity is there and when exerted shall prove able, they must not be confounded with that intensity of conviction which men attuned to achievement have cultivated within themselves.

"Trust thyself," says Ralph Waldo Emerson, "every heart vibrates to that iron string. A man should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages."

The man who would accomplish exceptional things should assume the part, flood his being with positive expectation, radiate the assurance and vigorous affirmations which beget confidence in others. "As a man thinketh in his heart, so is he."

Attitudes of Power

In walking through our public parks, those little breathing spaces in the great city, we often see melancholy figures, bent over in moping posture on the bench, conversing in dismal voice. They have bent themselves into that miserable position and talk in woebegone tones, we conclude, because they feel so discouraged. But is this correct? May it not be precisely incorrect?

"I have often observed," says Edmund Burke, "that, on mimicking the looks and gestures of angry, or placid, or frightened, or daring men, I have involuntarily found my mind turned to that passion whose appearance I strove to imitate; nay, I am convinced it is hard to avoid it, though one strove to separate the passion from its corresponding gestures."

According to this point of view, the bodily manifestations cause the corresponding emotions. Run from a bear and you feel frightened; look brave and you feel brave; assume the posture of grief and that emotion will soon steal upon you. In other words, bodily symptoms are the real content of emotions; assume the bodily state in any particular circumstance

and the emotion has reality; refuse it bodily expression and the strongest gust of passion is as a pale colorless shadow.

The practical implications are most important in building power of will. Fear, violent outbursts of anger, self-depreciation, grief and melancholia are marks of the negative state, inimicable to positive achievement. Refuse to express these emotions—to gaze furtively around, hang the head, speak in plaintive tones—and they die.

Assiduously, and in the first instance cold-bloodedly, go through the outward expression of the emotions desired. Let posture and walk express self-reliance in every lineament, speak with the accent of courage, assume attitudes of power, and power in reality will in due time flow in upon the mind.

Self-Discipline

In order to achieve in a practical way whatever program he maps out, a man has need of surrounding himself with rewards and penalties. Were he not to do this, other persons would be obliged to attend to it for him, or, as is commonly the case, he would attain only that mediocre career to which human nature, freed from pressure, normally tends. The ambitious man prefers to discipline himself; he devises rewards far more alluring and applies the lash with much less pity than any superior would dare to do.

With the project set clearly before himself, he cuts off all avenues of retreat. The doubt and uncertainties which from time to time arise and which if unchecked will soon produce failure thoughts in rank growth, he dismisses with scant courtesy, or when necessary with stern repression.

Such measures guard with jealousy that most precious possession of the achieving spirit, inner positiveness.

Self-pity, self-praise, or the remarks of indulgent friends afford a man no basis for the discipline of himself; and adequate basis depends upon standards, and rewards and penalties

should vary with the degree to which he attains these standards. They should be graded according to the excellence of the attainment or the seriousness of the lapse, with due regard to whether or not this be the first occurrence.

In the operation of such a system of rewards and penalties, certain mischievous fallacies have to be guarded against. Some of these are as follows: (1) The surly, greedy insistence upon unearned enjoyments. Yielding but encourages still worse greediness, still greater surliness, and trains into tyrant power the contemptible characteristic which insists that it shall reap where it has not sown; (2) The plaint that since effort has been carried to the point of fatigue rewards should follow. Results attained, whatever they may be, determine the just recompense. In a given case effort long continued without positive attainments may merit the harshest of reprimands; (3) The excuse habit. Were plausible excuses to secure unearned gratifications or make possible escape from merited chastisements, excuse making would develop into a fine art and the mental adroitness which otherwise might have carved a fortune would be drawn from its true purpose into paths of self-deception. Therefore, bestow rewards accurately, yet with gladness and the spirit of celebration; penalize judiciously, with regret but firm insistence; in all things acting as thine own best friend, rule thy spirit with an even hand.

Will Training Summarized

1. Concentrate upon some one thing—have a ruling passion.

Avoid distracting attention with too many projects.

2. Set for yourself definite tasks.

Do not leave loopholes inviting non-performance.

3. Keep immersed in the atmosphere of achievement.

Permit minor purposes no opportunity to create discords.

4. Persistently affirm the attainment of that which is sought.

Crowd out all negative thoughts.

5. Believe in yourself.

Cease self-depreciation.

6. Assume attitudes of power.

Avoid slouching postures and plaintive tones.

7. Reward and punish yourself systematically.

Do not weakly upset the natural law of consequences.

The program which this chapter has presented deals with the measures, plain and simple, which enable a man to carry out St. Paul's injunction, "Be ye transformed by the renewing of your mind." In practice, these measures prove themselves capable of maintaining an idea dominant in the mind, and luminous in its appeal. Such an idea in itself constitutes power and will and guarantees its possessor a high order of positive selfhood.

EXERCISES

The attainment of will power is necessarily a matter of growth, but the program which has been outlined enables one to proceed systematically, at a rate of progress which can be surprisingly rapid if he so choose. Let us utilize Chart 17 as a convenient means for checking growth from day to day, and week after week. This self-grading chart is to be used in the same way as the health chart shown in the preceding chapter, except that since the items are but half as numerous the credits must be twice as large. At the end of each day: (1) Credit yourself with "2" in the proper space opposite each item you have conscientiously observed; (2) Put a zero opposite each item neglected or violated; and (3) Credit yourself with " $\frac{1}{2}$," "1," or " $1\frac{1}{2}$ " opposite each item partially observed.

MEANS EMPLOYED	SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.
Concentrated attention							
The set task							
Atmosphere of achievement							
Persistent affirmations							
Faith in self							
Attitudes of power							
Self-discipline							
DAILY TOTALS							
WEEK ENDING . . . TOTAL CREDITS . .							

Test Chart 17—The Culture of Will

A perfect score for the day thus totals 14 credits, or 98 per week. Add two extra credits for general good behavior or some especially meritorious act in developing your will. The week's perfect score represents 100 credits.

You must have been convinced years ago of the importance to men in business of a strong will, and oftentimes since, no doubt, you have longed to make such a will your own. "Will power," says President Eliot, "is the tap root of efficiency." Here is a clear-cut program,—something that will get results, with a definite system of checking progress from day to day.

CHAPTER XVIII

MENTAL ECONOMY

It is one of the characteristics of mental economy that efficiency and ease seem to go together.—CARL EMIL SEASHORE.

The Art of Mental Economy

The supplies of physical and mental energy, the production of which was discussed in the two preceding chapters, must, notwithstanding their abundance, be expended with judicious hand. This is the province of mental economy; it concerns conservation, the utilization of the physical and mental resources with superior discrimination. This, of course, does not mean shirking, nor mental sabotage, but the handiness of the veteran who uses every inch of cover in the charge, while the untrained man recklessly exposes himself.

The guiding principles of mental economy are illustrated in this study of four Italian typesetters of the Niccolai Printing House. The record of the output and quality of their work from hour to hour during the day showed the following results:

Hours	8-9	9-10	10-11	11-12	12-2	2-3	3-4	4-5
Total lines set.....	84	104	92	86	Rest	99	82	64
Total errors made....	17	10	18	28	Rest	5	22	30

These figures are significant to every business man. As the day wore along the amount of work decreased while the errors increased. *Both in quantity and quality, working capacity rises and falls from hour to hour.*

The Tired Person Is Poisoned

These fluctuations in working capacity have been experienced by practically everyone. At the beginning of the day we have a feeling of freshness, of reserve force and exuberance, and we attack our tasks with zest. After a time the feeling of freshness with which we started disappears and we feel dull and uncomfortable. It becomes hard to concentrate; the work before us no longer appears inviting, we are easily distracted, and upon slight provocation the mind escapes its imposed task and indulges in aimless wanderings. The feet become cold, the head hot. Indifference gives way to repugnance, then to restlessness, nervousness, irritability, and liability to passionate outbursts.

The well-nourished cells with which we began the day's work have been destroyed; their energy has been yielded up and impurities now clog the system. Literally and accurately, the tired person is poisoned.

A Record From Life's Firing Line

An instrument called the ergograph shows the process graphically. The hand, back down, is strapped upon a small table and to the end of one finger is attached a cord which, passing over a pulley at the edge of the table, ends with a small hanging weight. Closing the finger lifts the weight and at the same time by means of a pointer traces a line on the registering apparatus. The more vigorous the muscle action the longer is the line traced. The diagram (see Figure 32), therefore, pictures graphically what is taking place inside the cells, on life's firing line. The muscles, bending energetically to their task, at first pull the pointer over wide distances, but the length of their contractions gradually diminishes until in the end, thoroughly fatigued, choked with poisons, they are no longer able to raise the weight and the tracing ceases.

Fatigue and Inefficiency

A very important law of exhaustion now comes into play. The muscle, thoroughly fatigued, requires a certain period of rest before coming back to normal, but if half-fatigued it requires not one-half this amount of repose but only one-



Fig. 32. A Nerve Test

The flexor muscles, upon being stimulated by an electric current every two seconds, demonstrated their strength by lifting a small weight, with which was connected an apparatus for registering the length of the lift. No. 1 was the muscle's record made just before the subject took an examination. No. 2, written immediately after the examination, showed "fag" from which, according to the No. 3, written two hours after the examination, the subject still suffered. (From Mosso's "Fatigue," by courtesy of G. P. Putnam's Sons.)

fourth. That is, if thirty contractions completely exhaust a muscle and a two-hour rest period restores it, the injury done by fifteen contractions can be repaired in one-half an hour. "Work done by a muscle already fatigued acts on that muscle in a more harmful manner than a heavier task performed under normal conditions."

Work done when fatigued is costly.

This costliness is highly significant when considered in its relation to efficiency. Fatigue disintegrates the personality in an especially insidious way, because it avoids to the last

the basic instincts, such as greed, hunger, fear, and sex appetite, but the later and finer acquisitions—creative ability, sound judgment, generosity, self-control—it attacks first of all. Since civilization at best is but a thin veneer laid on in fear and trembling, it is easy for fatigue to unmask the savage in us. The business man poisoned by fatigue is selfish, ill-mannered, explosive, as tenacious perhaps over a two-cent stamp as over a \$10,000 project. The storm clouds which gather on his face when the most trivial mishaps occur and his puttering devotion to essentials and non-essentials alike prove that poison products have dulled his sense of balance and that perspective is gone.

The tired man drifts naturally towards inefficiency. The presence of fatigue means that the work performed under these conditions is both costly in energy and deficient in results. It behooves us, therefore, now that we are employing the methods described in the preceding chapters for making all possible increases in our energy product, to adopt in the expenditure of this energy the wise policies of conservation that will next be described.

Definite Accomplishment

The action of a dozen inexperienced track laborers in trying to move a heavy rail contains a moral which may serve as our first principle of mental economy. They will tug and tug at it, straining and expostulating and perspiring, yet the rail does not budge. But observe an experienced gang. With a hearty "Heave ho, heave ho!" they swing the rail into place. They know how.

The mental worker who keeps himself under a non-intensive, continuous strain dribbles away fruitlessly his nervous force. Such is dawdling, the bane of efficiency.

Time and effort are required to prepare the materials needed for a task and to get oneself properly warmed up. A

person cannot afford to put himself through these first time-consuming and painful steps again and again; changing aimlessly from one job to another without fully completing any is an inexcusable waste. When once under way the efficient worker energizes intensively and pushes the task hard until he has some positive accomplishment to show. Then comes rest, real freedom, for the thing carried to completion is, as it were, placed under the custody of a ratchet which will not allow it to roll back and crush him.

Concentrate; aim at definite accomplishment.

Habits and Specialization

When this policy of concentration and definite accomplishment is put into operation, the energy stores will doubtless be drawn upon vigorously during certain periods. This is as it should be; accomplishment demands a consumption of power. At the same time, however, judicious selection ought to be made among the energy stores for those best suited to the requirements of the task at hand. The problem is analogous to the choosing of employees.

When a group of young women apply for work at the employment department, the skilled manager, while he may engage all of them, places them with a sureness born of long experience. The stolid-faced girl with unkempt hair and skirt which does not meet the waist by two inches or more he assigns to a machinery room where the work is greasy, while the refined and sensitive girl is placed in an inspection department where the work is of a higher character and conditions are very different. Such placing, the manager knows, utilizes to best effect the characteristics and the different grades of employee ability.

In our mental make-up there are the stolid workers, those stable reactions imbedded in the subconscious—old, fixed, easy and inexpensive; and the sensitive workers, those highly plastic

reactions held in consciousness—variable, difficult and expensive.

Use the simpler forms of mental energy, conserve the higher.

Why does one tire so quickly in doing a task the first time? Because it has to be done by the sensitive workers, higher nerve centers—the “general manager,” to use the phrase of Chapter X, and their effort is taxing. By and by, however, under repetition, this once new task will come easy because made automatic, that is, developed into a habit presided over by the lower nerve centers.

The nature of the nervous system itself, therefore, emphasizes the need for specialization. The amateur in any occupation necessarily works under conditions of strain, and if by shifting aimlessly from occupation to occupation he continues this strain, he never rises to the heights of accomplishment so easily reached and maintained by the specialist. The latter, simply because he does specialize, lays broad and deep the foundations of his ability in the lower mental levels—old, stable, economic, graceful; these constitute his reserve, always at his command, and they provide him that self-confidence and drive which lead to achievement.

Introspection versus Objectivity

Whatever be the amount and particular grades of nervous energy requisitioned from our stores, the requirements of mental economy always dictate that these be expended upon work. Energy when exerted should yield positive accomplishment. This matter-of-fact policy, however, is overridden when the mind, a victim of unhealthy self-analysis and brooding introspection, turns like a faulty machine inward upon itself and wears its mechanism and power fruitlessly away. According to the term in popular use, the person worries.

The causes advanced by the worrying person in attempting

to account for a particular depression appear to him very real. He has eaten some food which he fears will not agree with him, his employer has treated him most unjustly in placing his desk in a less favored position where possibly there are drafts, a former acquaintance offends him by not returning the nod of recognition given him in the crowd this morning, his project over which much labor has been expended cannot as yet be considered definitely successful, a stenographer—"the foolish thing"—misdirected one of his letters and it now returns to his desk five days late. Does the matter concern health, wealth, happiness, social position, efficiency? It is all the same. Worry tortures its victim incessantly, finally resorting to the most insidious torture of them all by worrying him over his worries.

The unhealthy mind continually fashions mountains out of mole-hills.

Worry, the Policy of a Spendthrift

The basis for most worries, when the matter has received a careful sifting, is decidedly trivial compared to the beliefs entertained by the person harassed and the damage which these overwrought beliefs have entailed upon his nervous system. Worry, therefore, constitutes the policy of a spendthrift. It is able to drain away the largest stores of nervous energy and when incessant, even though mild, it is more exhausting than occasional fits of intense anger, fright, or over-excitement. Under the more serious condition termed melancholy, the victim tortures himself with painful emotions until the normal processes of thought are inhibited and his mind is possessed with fixed ideas of bankruptcy, strikes, guilt, or what not. These ideas, along with all sorts of old regrets, checked ambitions, unrealized aspirations, self-distrusts, and the sense that things in general are not as they should be with him, represent useless baggage.

"In the healthy-minded," says William James, "there are no fears or shames to discover; and the sensations that pour in from the organism only help to swell the general vital sense of security and readiness for anything that may turn up."

Look outward; cultivate objectivity.

This slogan serves as health's alarm clock to the person who spends over-much time rummaging about on the inside. The task is on the outside; cleave to it.

Zones of Low Fatigue

The person alive to present opportunities, whose mind, when turned inward for purposes of making whatever preparations are required for an effective utilization of these opportunities, quickly swings back upon objective things, expends himself productively. He has eliminated a most serious waste, and by so doing has cut down appreciably the fatigue caused by his task. A still further reduction of this fatigue produced by work is next to be considered.

Every effort put forth has its price in terms of fatigue; yet this by no means implies that the price is necessarily always the same nor that the business man, determined to put forth every possible effort even though it does cost in terms of fatigue, need be an imprudent bargainer. Should he wish to pay no exorbitant price he will find nature quite ready to deal fairly with him.

Co-operating effectively with nature in this respect requires observance of the principle mentioned on a previous page that work done when fatigued is costly. Conditions of steadily increasing fatigue have as their correlative, charges which gradually become more and more costly until after a certain point is reached the price should be regarded as prohibitive. The man who has the foresight to consider his working capacity in terms of tomorrow, next week, or even twenty years hence,

refuses to push himself into these costly fatigue zones. Unless it is a real emergency of some sort, the results attained do not justify the price paid.

The sovereign method for keeping oneself in the low cost zones is recreation. The word itself implies as much, recreation.

The Means for Recreation

Body and mind are undergoing constantly a tearing down process, metabolism, and a building up process, anabolism. During severe effort the tissues are destroyed faster than built up; during periods of recreation they are built up faster than destroyed. The ideal condition is one in which a delicate balance is preserved.

The concrete means for carrying out this ideal in a practical way are exceedingly numerous and so varied that any business man surely can satisfy his needs adequately. Each of the following has its enthusiastic devotees:

Walking	Polo
Running	Bicycling
Jumping	Motoring
Handball	Yachting
Gardening	Fishing
Farming	Volleyball
Wood-chopping	Shooting
Golf	Quoits
Tennis	Hunting
Cricket	Boxing
Baseball	Wrestling
Horseback-riding	Calisthenics
Rowing	Ice-boating
Swimming	Weight-pulling
Skating	Military drill

Usually these forms of recreation are thought of in connection with a vacation, and it is true that this period does afford an opportune time for their exercise. Years ago the vacation was a subject of derision, as, in fact, it still continues to be among a few business men. Yet its hold upon people of all callings has never been more firmly established than at present, and the practice of our leading executives is to spend longer periods of time in this way than formerly. Doubtless it would express their view more accurately to say they prefer to *invest* more time this way since the change of occupation and the diversion of interest into new channels afforded by the vacation increases the total results they attain during the year.

In anticipation of a vacation, however, and in view of then setting their mental houses in order, not a few business men work desperately for eleven months with scant regard to their physical and mental upkeep. Such a policy is shortsighted. Under a long period of stress and strain the physical machine toils in the costly fatigue zones and becomes seriously run down. In consequence, too great a burden is placed upon the vacation because the process of repair under these conditions is rendered both slow and wasteful.

The general rule that work done when fatigued is costly indicates that the time which has been allotted heretofore to a single vacation possesses increased effectiveness when divided into several shorter periods. Men of affairs are steadily coming to see the wisdom of at least one vacation of reasonable length during the year and several short ones, the latter oftentimes of the week-end sort which has attained a deserved popularity.

“Vacations Daily”

The benefits which come from frequent rest periods may well cause a person to consider how he may insert rest periods into his every day. Why wait even for the week-end? In

fact, part of the plan here proposed necessarily is in operation now and the project as a whole is entirely feasible, as we shall indicate.

The most refreshing of all rest periods as well as the most universal is sleep. Since it holds the individual in an inactive state, his muscles relaxed and mental activity sunken deep into the realm of the subconscious, it accelerates most favorably the processes of rebuilding.

The length of time which ought to be devoted to sleep has long been a subject for comment. Frederick the Great, Napoleon, John Wesley, and the Duke of Wellington, to cite four of several notable instances, were able to refresh themselves completely with four hours' sleep. Shall the business man attempt to follow their example?

Thomas A. Edison is a business man who does this. Indeed, he considerably lessens this four hour period upon occasion. At the age of sixty-seven he once worked twenty-two hours daily for forty consecutive days, but in an answer given just after undergoing this ordeal he explained to his questioner a matter which usually is overlooked entirely in the discussions concerning the number of sleeping hours required, namely, the conditions under which one sleeps.

"When I lie down," said Mr. Edison, "I go to sleep almost instantly—within a minute. It seems as if when I lie down my brain is automatically turned off. I have tried, sometimes, to think in bed, only to discover that I could not do it. I fall asleep. And, when I sleep, I do not toss and dream as do those people who eat too much—I am dead to the world until it is time to get up. And, when I wake up, I do not have to wait until I have washed my face with cold water to feel that I am awake—I am wide awake and ready for business as soon as I open my eyes.

"But the real reason why I can do with so little sleep is that a healthy man requires little sleep."

The number of hours a person should sleep depends upon the amount of fatigue within his body to be cleared away and the rapidity with which his system works at this task of recuperation. There is no set rule which will hold for everybody. The vigorous individual who comes to bed with a body only moderately fatigued and with strong powers of recuperation may get along very well with four hours. The neurasthenic may bring his body to bed so poison laden and possess such limited powers of recuperation that ten, even twelve, hours are none too much.

Since undersleeping leaves the system still poisoned and oversleeping cannot possibly have a weakening effect, the general rule is to *sleep as much as you can*. In applying this rule, however, careful attention should be given the conditions of the sleep itself. As these conditions are improved the length of time required can steadily be cut down. This method is a practical one for adding an hour or two daily to our result-getting time.

Sleeplessness and Its Cure

The rule of "sleep all you can" is to many men, unfortunately, hard to follow. Apparently they cannot sleep as many hours as they should in order to feel fully refreshed. A few, the more serious cases, are victims of insomnia, men who face the day with listlessness and to whose mind the thought of the coming night only adds deeper depression.

In good health, moderate fatigue and the objective mind, sleeplessness has three excellent antidotes. If the sufferer claims that this suggested remedy merely puts him inside a vicious circle, where the lack of health and objective-mindedness, for example, prevent sleep, and lack of sleep makes impossible health and objectivity, it may also be pointed out that an improvement in any one of these respects serves him as a vantage ground from which to advance himself in another

direction. One may mount by friendly circles as well as descend by vicious circles.

Concrete measures which may be commended are these: keep the digestion in good order, take light exercise before retiring, bathe the feet for ten minutes or so in very hot water, assume a comfortable position in bed, close the eyes gently, and become so lazily relaxed that falling asleep is about all the mind cares to do. In so far as is possible without being too energetic about it, avoid worry, excitement, overstrain, grief, emotional shock, remorse, fixed ideas of one kind or another, and morbid fear, especially the auto-suggestion that sleep is impossible.

This latter, the auto-suggestion that sleep is impossible, haunts many people, as Dr. McComb points out. "They are obsessed with the fear of not sleeping. They have had experience of bad nights, and, anticipating that the coming night will be like the others, they spend their time thinking of the terrible consequences which will result from failure to sleep. That is, of course, all wrong. Let the sufferer dissipate this evil fancy by the reflection that few nights' bad sleep is productive of no great injury; that if only nature be permitted a change, the instinct of sleep will reassert itself. He will do well, then, to approach his time of rest with an air of indifference, of absolute trust in the processes of nature. Let him say to himself: 'Whether I sleep or not tonight is a matter of no great moment. Why then worry?' "

The Gospel of Relaxation

A refreshing sleep constitutes but the first step in our program of "vacations daily." The second step, a matter likewise of decided efficacy in keeping a person safely within the low fatigue zone, we shall refer to as relaxation.

A Scottish physician, the most eminent nerve specialist in his country, Dr. Clouston, upon visiting this country many

years since gave this as his belief. "You Americans," he said, "wear too much expression on your faces. You are living like an army with all its reserves engaged in action. The duller countenances of the British population betoken a better scheme of life. They suggest stores of reserve nervous force to fall back upon, if any occasion should arise that requires it. This inexcitability, this presence at all times of power not used, I regard," continued Dr. Clouston, "as the great safeguard of our British people. The other thing in you gives me a sense of insecurity, and you ought somehow to tone yourselves down. You really do carry too much expression, you take too intensely the trivial moments of life."

The overwrought physiques observed by the doctor, whose testimony in this respect admits of corroboration almost everywhere in business, induce a similarly overwrought condition of the mind. What are the effects upon mental economy?

Conservation versus Waste

Business man A and business man B, bound for their respective offices in the city, enter the suburban station at the same time Monday morning. The train, they discover, is to be ten minutes late. A in ill mood proceeds to walk up and down the platform, pulls out his watch every minute or two, consults his time-table, drums upon the platform with his cane, and glances anxiously up the track. B walks up and down the platform also but slowly and serenely, with evident relish over this opportunity to lengthen by a few minutes his morning constitutional and apparently oblivious to the fact that there are such things as trains to be caught. Yet he leaves that station quite as promptly as A.

Once on the train, A sits on the edge of the seat, his body rigidly alert to every motion of the car and his mind ready to chafe at any sign of fresh delay. He tears through the morning paper, consults both time-table and watch incessantly,

and vows vengeance upon the railroad company which dares to cause him such annoyance as this particular, inexcusable lateness; he will move away and give them no further patronage. B sinks into his seat; he conserves his energy through relaxation. Yet both men leave the city station together.

Conservation versus Waste—Results

The two executives are soon dispatching the day's work, hour after hour. The time at length arrives when A, finding himself completely exhausted and bearing in mind the need for exercise, hurries over to a gymnasium. He will put his muscles through their required program in short order. This to his mind represents exercise although, as Dr. Woods Hutchinson well points out, "what the average business man or office worker is doing, when he rushes through his gymnasium cyclone fashion, chins himself fifteen or twenty times, jumps at the parallel bars, or swings on the horizontal bar for five minutes, smashes the medicine ball back and forth, hammers himself purple in the face on the punching bag, runs ten times around the racing gallery, and takes a hot shower bath and a rub-down all in eighteen and a half minutes, is simply loading himself to the bursting point with fatigue poisons of muscular effort and allowing no time for their elimination. He comes to the gymnasium from his office with his blood loaded with the fatigue toxins of brain work. He adds to them a greater amount of the muscle fatigue poisons and goes on his way rejoicing, both barrels loaded with carbon dioxide instead of one as before."

This represents A as he takes the train home. B has preceded him by two hours, his day's work nicely cleared away and himself primed for the golf links.

A's wife that night is concerned over his wan appearance and wonders if some of that new remedy advertised so extensively under a most impressive name is not worth a trial in

order to improve his run-down condition. A himself admits he is overworking and that business is a hard life. B's wife when she is about to call her husband to dinner discovers him blissfully taking a nap.

Which clears away more tasks daily with fewer mistakes? Which will live longer and more happily because more efficiently?

"Vacations daily" afford a simple means for keeping in the low cost zones of fatigue which each business man has almost constant opportunity to utilize. When obliged to wait, relax. When riding on a train or trolley car, relax. When sitting in the office chair, relax. When at luncheon or at dinner, relax. Eliminate from the muscular system all restless and unnecessary movements, keep the brow unruffled, the respiration regular and full.

Relax; reach the mind through the body.

Repose as an Ideal

The average American, however, is rather proud than otherwise of his overwrought state. His ideal is one of hustle, "pep," hurry, "get through in spite of the consequences," and to his way of thinking, eagerness, breathlessness, the bottled-lightning expression, are marks of efficiency. The exact reverse is the case.

"It is your relaxed and easy worker," says William James, "who is in no hurry, and quite thoughtless most of the while of consequences, who is your efficient worker; and tension and anxiety, and present and future, all mixed up together in our minds at once, are the surest drags upon steady progress and hindrances to our success."

With a rough and ready zest our fathers pioneered a vast new country and exploited its then apparently unlimited resources with a lavishness which could not possibly continue for all time. We have read the handwriting upon the wall and

already are addressing ourselves to the conservation of our natural resources.

With a lavishness rivaling the treatment accorded our supplies of iron, coal, lumber, and fertile soil our people have heretofore expended their resources of brain and muscle. This also must cease if we are to endure as a virile people. We must reshape our ideals and, instead of admiring restlessness, over-anxiety and breathless rush, become living examples of harmony, reserve, and repose.

The Elimination of Distractions

In the making of repose an ideal in business, the executive can proceed along certain definite lines, none of which, very probably, will impress him as containing any startling possibilities but all of which combined are able to secure him results of decided significance.

The elimination of distractions is one of these means. Many executives, particularly those in subordinate positions, suffer far more than they realize in this way. The room may be noisy. It is possible of course to hold the mind to its own business while various other things are going on, but it is inevitably at the cost of some strain. The wear and tear of the noisy city life on every inhabitant is a fact realized when a person gets out into the country; the quiet often brings an actual shock to an urbanite's nerves.

The head of the welfare department of one of the largest concerns of the country, a man who is an authority on the education and care of employees, has two particularly noisy typewriters, one on each side of his desk. He keeps one or both of them busy most of the time even when conversing with a visitor. He himself is a strong-voiced, robust individual and apparently has never considered the wasteful nervous effort exerted by himself and his visitor in overcoming the racket of the machines.

Then there are eye distractions. A certain large organization has adopted the dubious policy of massing its forces in a few huge rooms, the department heads with the rest. The head of one of the departments has contrived, however, to turn his desk, which is built up with piles of books, etc., so as to shield himself from the view of the room. He did this in self-defense, because he had to shut out the sight of other people in order to do his own thinking. One device which can be tried anywhere by one who cannot ignore eye distractions is that of merely closing the eyes.

Cases Decided Once for All

The noise of typewriter or phone very commonly distracts a man less than the reappearance of decisions once made but which, like Banquo's ghost, do not down.

The executive has in his program of the day's work a variety of topics and callers scheduled for the attention due them. Unless these "decided" items are to be thieves, they must upon receiving the attention due them make their exits. Decisions once made should afterwards be a closed book.

The trying of doubtful cases over and over again—unless new and essential data have been secured since the decision was originally made—condemns a man to a treadmill existence. This cannot be tolerated by the executive who aspires to bigger things, since the swinging of these bigger things requires that decisions be definitely made and business dispatched. It is these items dispatched—not numberless deals hanging fire—which cultivate the feeling of repose.

A Little Humor Now and Then

The inner tension, when it threatens to upset a man's equilibrium, calls for humor as a safety valve. How many an angry look, how many useless quarrels and heated arguments, have been dissolved into pleasant occasions by the power of

laughter! See the humorous side of things, tell a joke, laugh your troubles away.

The seventy-five-year old Collis P. Huntington—a man of masterful personality, a pioneer and builder of railroads, who spared neither himself nor others—replied to the reporter who asked him how it was he kept so young looking and “spry;” “Never too busy to hear a joke or to tell one.” This recipe was in effect the same one employed by the greatest burden-bearer this country has yet known, Abraham Lincoln. When Civil War difficulties threatened to crush him, Lincoln told a joke.

This suggestion is not in the least a plea for flippancy, but rather a protest against taking one’s work too solemnly. The expert, whether he be on the golf links or seated at the president’s desk, should present less the appearance of awe-inspiring solemnity than of easy confidence. A twinkle in the eye augurs well for the man who would go far.

The Spirit of Youth

The man who approaches his tasks with an easy confidence and plays the game with zest will possess something of that spirit of youth which executives, creators of projects and pushers, too, must needs possess if they are long to survive. “Young men for action—old men for counsel,” the proverb says. The marvelous executives who made and during the Great War directed the tremendous new army organizations in England and France were mature men with young bodies.

Consider Sir Eric Geddes, when first Lord of the Admiralty, in the recent coalition English “government by business.” He filled two “super-man-size” jobs because of the sheer, dynamic power of his personality. “It is characteristic of the man,” wrote Isaac F. Marcossin in the *Saturday Evening Post*, “that he never permits a job to master him. He does the conquering. Part of his administrative creed is to

organize his work so thoroughly that it can run without him." Sir Eric was at that time forty-two years old, six feet two in height, and the very incarnation of youthful power and energy. He was also Director General of Transportation in France and Director of Military Railways at the War Office. He literally took up a whole railway system in England and laid it down in France.

Young bodies, such men have, and what is more, young minds, young hearts! Youth dares anything; it has never known defeat or humiliation. And youth fronts life with gaiety; a young face is a laughing face. The grown man, especially if he is in a position of responsibility, has become wary; he thinks rather of the obstacles, the odds against him, the need of waiting for reinforcements. Moreover, work to him is a sober thing. He gets no fun out of it and his face shows it.

But the big man—no matter how often he has been defeated—retains throughout his career somewhat of the spirit of youth—its enthusiasm, its easy confidence, its dash and zest.

Fads versus Common Sense

The ideals of mental economy which have been discussed so far and the concrete means required for putting them into practical operation constitute a matter-of-fact program. The same statement applies to the discussion of physical energy in a preceding chapter. Nevertheless, the attainment of good health, physically and mentally, is so greatly to be desired and at the same time something about which the average man finds it difficult to reason scientifically, that no other subject, save possibly religion, has been more responsible for pet theories, fads and delusions. The man in the street has imbibed all sorts of non-scientific notions as a part of his early childhood lore and in the matter of his physical and mental well-being still acts upon fallacies often of the most flagrant sort. Some

of these are cited, though necessarily a small per cent of those which daily pass as sound advice.

1. "*Brain Foods.*" It is an old illusion that certain foods are "brain foods," the usual assumption being that fish is the food *par excellence*; and not a few assiduously continue thus to feed their stomachs in the vain hope that by so doing genius-like thoughts will eventually flower in the brain. The fish-eating peoples of the world, so far as the evidence of history and statistics goes, show no preponderance in mental ability.

The manufacturers of certain foods, which it may be added are often very good in themselves although unusually high in price, at times use this "brain" appeal in selling the credulous. Cheese, for example, is a good brain food although it does not become more so when branded with a formidable name and sold for a dollar a pound.

The fact is, the brain does not jealously reach down into the stomach to claim a certain food as its own, but feeds from the general store which through the stomach walls and intestines pours into the blood. *All* foods, consequently, which meet the best dietetic standards are brain foods.

2. *Quantitative Energy Producers.* It is a common delusion that the mere taking into the body of large quantities of food and air develops physical and mental force.

It does not suffice merely to breathe vast quantities of air into the lungs, nor to overload the stomach. Energy is developed in the cellular tissues from products transported there by the blood, and that food or air which does not get into the blood through normal processes is still outside the body to all practical purposes. The food must be digested and the air absorbed into the blood, before either is of the slightest avail.

3. *Fallacious Vacations.* "Going away somewhere" is not synonymous with "vacation," popular beliefs notwithstanding.

The plaint is often made at the close of a vacation, "I am more tired than if I had worked every day!" This may be

quite true; one's regular routine thrown topsy-turvy and days of license indulged in do not constitute *re-creation*. The true vacation is closely correlated with rest conditions, and only incidentally with "going away somewhere."

4. *The "Overwork" Delusion.* That overwork is the cause of illness or depression, especially in one's own case, is a belief with which countless persons deceive themselves.

"Most people who are 'overworked' are, more properly speaking," says Irving Fisher, "simply the victims of bad air, bad diet, poisons, and worry. They believe that because they are tired it must be work which is hurting them. They are undoubtedly working beyond their working capacity; but their working capacity is only a fraction of what it would be if they took exercise, were not constipated, did not eat too much, abjured alcohol, or ceased to worry continually. If they lived hygienically in these respects, the work which was a drag might be an inspiration."

5. *"Health Thoughts."* The view that inasmuch as mind controls body *health thinks* are a panacea, is a prevalent fad.

The mind does control the body to an extent far surpassing what might be judged off-hand; hence the crop of pseudo sciences, extravagant in their claims, perennial in their "discoveries." But while mind does influence body, body in turn influences mind; in fact, the two act and react upon each other most intimately. Hence in answer to these pseudo mental sciences we need only point out that whereas $2 + 2 = 4$, two alone can never equal four. Apostles of many occultisms may take note!

6. *"Patent" Health Builders.* "Isms" and paraphernalia as the true road to health, constitute another delusion most ingeniously exploited.

The simple things have nobody interested in exploiting *their* claims, but they will continue to build up physical and mental vigor centuries after the exponents of Dr. Blank's Health

Foods, Dr. Simon's Electric Belt and Sampson's Clothes Closet Gymnasium have lived out their allotted time. "Any system of physical culture," says Dr. Woods Hutchinson, "which does not include at least from two to four hours' gentle exercise a day in the open air, three square meals, and plenty of sleep is of the Evil One."

7. *Long Suffering Credulity.* Finally there is the persistent delusion that any health "system" is worth a trial.

How else could we account for the never-ending fads in diet, chewing, exercise, clothing? The propounders of these fads very commonly are invalids and from what little conclusive evidence we have of them, viz., their own death rates, they are what an insurance company terms poor life risks. Those who devote themselves to such fads are simply taking chances. This means learning only by trial and error, the slowest and most costly of all learning processes. The wise man uses foresight, he reasons in advance what the effects will be; and there is the same need in health culture as elsewhere to employ this eminently practical method.

EXERCISES

"Planning" Mental Effort

The difference between old-world, rule-of-thumb methods and the pioneer type of mind has been illustrated by this story: There was once a piece of work that would take about six days to finish with the tools at hand. The old world workman contemplated it steadily and not very thoughtfully for several minutes, then he went at it methodically but stoically and did it in just the same way at exactly the same speed as was his custom. He finished the piece of work in *six* days.

The pioneer sat and looked at his task for quite a while. "Durn it," he thought, "that'll take me six or seven days." He thought all the first day and the second and most of the third. Then he began to make himself some new tools. They were ready on the sixth day. Early the next morning the pioneer went to work and at sundown the job was done. It took him *seven* days to attain his end but—he had

a set of new and better tools. With these, ever afterwards he could accomplish the six days' task in one.

The mental economist is like the pioneer. He prefers not, like the average man, to blunder along somehow, wasting his time and effort unproductively, worried, distracted, and working in the high-cost fatigue zones; but by taking thought in advance to devise for himself standards of conservation which ever afterwards serve him well.

CONSERVATION STANDARDS	SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.
Definite accomplishment							
Use of habits							
Objectivity of mind							
Recreation							
Relaxation							
Repose							
Freedom from fads							
DAILY TOTALS							
WEEK ENDING . . . TOTAL CREDITS . .							

Test Chart 18—Mental Economy's Self-Grading Chart

Pioneer methods, that is, carefully thought out standards, are in the end always the most economical.

Let us see how we can proceed to make certain of these conservation standards now our own.

A Self-Grading Chart

Test Chart 18 is to be used in the same way as was Test Chart 17.

Credit yourself daily with a "2" for each item conscientiously observed, a zero for those neglected or violated, and a " $\frac{1}{2}$," a "1," or a " $1\frac{1}{2}$ " for those partially observed. General good behavior during a week or some especially meritorious act of mental economy is to receive two additional credits, 100 credits representing a perfect score.

What record do you score as a conserver of your nervous and mental resources?

The discussion in this chapter of introspection versus objectivity emphasizes the spirit in which Test Chart 18, as well as the various other forms in this book, should be approached. As a first step to better methods you should know what your present methods are. Upon this information as a basis better methods will be devised, whose improvements when made ought to be recorded. But the purpose of the forms will be vitiated if you turn into a mere destructive self-critic. Let self-analysis always be followed by positive plans; put the emphasis upon improvement and the definite methods through which this improvement can be reached. Used in this way, the forms will make definite your program and afford incentive.

PART VII

PERSONAL FINANCE

Experience has proved that it is not safe to lend money to men who have not proved their ability to save money.

—JOSEPH FRENCH JOHNSON.

In city and in country, from the captains of finance to the smallest units in the army of business, in transportation, in manufacturing, in trading, even in farming, the corporation has come to be recognized as the best form yet discovered for organizing the production of wealth.—WILLIAM H. LOUGH.

This is the time for America to correct her unpardonable fault of wastefulness and extravagance. — WOODROW WILSON.

CHAPTER XIX

THE POWER OF FINANCE

It is of no use to have big ideas if you have not the cash to carry them out.—CECIL RHODES.

Pushing a Business Project

The big ideas of which Mr. Rhodes speaks, and cash as well, were absent in the case of Mary Elizabeth Evans, a girl of sixteen, who some fifteen years ago with her widowed mother and three younger children was living on her grandfather's farm near Syracuse, New York. The death of their grandfather had thrown them on their own resources. The problem of clothes, education, and the many other requirements of a growing family, was very difficult. The task of solving the problem devolved on Mary Elizabeth.

To meet the situation, Mary Elizabeth possessed two valuable personal qualifications, neither as yet recognized by her as a business asset. She was a born candy-maker and a born executive. In addition, she was desperately anxious to increase the family income. But what to do, she did not know. Her attitude was one of "watchful waiting."

Her opportunity—though not recognized as such at the time—came in the form of a house-party given by an old family friend in Syracuse. Mary Elizabeth wanted to help, and her contribution took the form of home-made candy, sent in a neat box and labeled "Mary Elizabeth's Candy." The candy made a "hit." It was good, it was attractive, it was different from anything the guests had tasted before, and inquiries soon drew its story from the willing hostess. She also volunteered an opinion that orders would be gladly received.

The guests were interested and practically every one of them put in an order for a weekly box of Mary Elizabeth's candy.

This was the starting-point of the "Mary Elizabeth" business. The candy was made at home and delivered by the children, collections being made as the candy was delivered. This little trade thus established grew, but grew slowly because of the out of the way location of the "factory." It was too difficult for would-be patrons to place orders and it was apparent that some more effective method of selling and distributing was essential if the business was really to amount to anything.

The "Help Yourself" Plan

At this critical time it was suggested to Mary Elizabeth that a booth could be rented on easy terms in the Arcade of the University Building. This would give a central and desirable location in Syracuse. The rental was within reach and the opening attractive, but how was attendance to be provided for? Mary Elizabeth herself had the candy-making to look after; the other children were too young; a paid attendant was beyond their means. An implicit trust in human nature finally solved the problem. *The customers must serve themselves.*

The booth was rented, neatly fitted up, and stocked with an attractive display of candy, every box plainly labeled with its price. An open cash box was provided and suitable signs notified the passers-by to help themselves and put the money in the box. Change to the amount of two dollars was placed in the cash box for the convenience of customers and the new venture was launched.

The success of the "help yourself" booth was immediate. The excellence of the candy, the attractiveness of the display, the entire novelty of its method, brought a liberal and increasing patronage. The contents of the cash-box sometimes ran up as high as fifteen dollars. Customers, neighboring tenants and even the newsboys who sold papers in the Arcade, vied

with one another in the protection of Mary Elizabeth's property, and the promotion of her business.

Growth of the Business

The success of the booth soon supplied the funds and the basis for a larger candy shop located near the Arcade. This store, conducted on the same principle of giving value received, always meeting the demands of its patrons, of being a little different from other stores, was as successful on a larger scale as the booth had been; and from that time on the Mary Elizabeth record is one of a very successful, self-financing undertaking.

At the present time, the business is a large one. Its candy stores and tea rooms are located in half a dozen different cities. The rental for one of these alone—the Fifth Avenue store in New York City—amounts to \$45,000 a year, and the annual "turn-over" of the various establishments runs far up in the hundreds of thousands of dollars. Mary Elizabeth remains at the head of the establishment founded so humbly some fifteen years ago, and it is still conducted on the same general lines laid down in the early history of the undertaking.

In Business for Oneself

The little candy-maker succeeded in doing successfully that which men in large number long to do—launch a profitable enterprise of their own. Most men of ability, in fact, would rather work for themselves than for others. "I would give anything to go into business for myself," declared a high official recently, a man who stands in the highest ranks of New York's leading railroad system. "After twenty years of working for some one else, I feel very strongly, at times, that I want to be absolutely independent." This statement was made by a man whose salary runs into five figures. He is enthusiastically interested in his work, and gets on well with

his associates. But to "be one's own boss" is often a greater attraction to the executive type of man than to work for another—even when independence results in lessened earnings.

The growing size and complexity of modern undertakings diminishes the opportunities for the one-man business, or the partnership in which men are their own bosses. It is to be noted, however, that almost every big business of the present day has grown from small beginnings and that it happens in the career of most executives that at one time or another they see the opportunity of running a business of their own. The task itself is complex and difficult, that is certain, but by no means impossible.

Requisites of a Successful Enterprise

In the successful development of a new enterprise three things are essential:

1. A sound undertaking.
2. Efficient management.
3. Sufficient capital.

The order in which the three factors are listed above represents their importance. A sound undertaking, efficiently managed, will—unless the odds are too heavy—overcome the handicap of insufficient working funds. It may also survive a period of inefficient management and be rescued from disaster by a change in its executive force. But a business which is unsound at the core must fail sooner or later.

Testing the Soundness of an Enterprise

The necessity for a sound undertaking is apparent. When a man starts in a line in which he has already had a wide experience and knows its possibilities he is generally a good judge of its worth. In some cases, however, a business must be tested or even developed before its soundness or unsoundness

can be determined. Money is frequently thrown away because no thorough investigation is made of the enterprise itself, or of the future possibilities of the market or of the supply of the materials or other essentials upon which the life of the enterprise depends.

The importance of testing out and selecting the most feasible project was discussed in Part IV; "The Thinker in Business." Generally speaking, the value of almost every new enterprise may be investigated or put to test in advance of operation at a small fraction of the cost required to try it out on a commercial scale. The man who believes in the future of a business should have actual tested facts on which to base his belief.

The Factor of Management

Given a sound plan or project to start with, the problem of its management is the next important consideration. Usually the young man starting in business for himself or interested in a venture or side line of his own, thinks that capital is the next essential of success, but this is not so. A sound undertaking, if managed by men whose integrity and ability are known and proved, will always be able to attract the capital required to finance it. The enterprise may be meritorious, the money supply may be ample, but every banker and investor knows that without good management the business will fail.

In speaking before a group of Wall Street financiers who were discussing the possibility of obtaining the very large sum of money required to carry out a project under consideration a prominent banker said: "Gentlemen, this matter of money is the least thing we have to think about! There is only one problem. Where are we to find the man big enough to handle the job? I speak as a banker and not in my personal capacity when I tell you that if you will show me the right man to put through the plans we are discussing, you need not give the

money a single thought." The financing of the project was to him a comparatively simple problem. The finding of the right kind of man to handle it was the difficult matter.

Sufficient Capital

The third essential, sufficient capital, is the one with which we are here primarily concerned. The reader, it is assumed, has his profit-making project in mind; he is thoroughly convinced he can manage it; but where can the necessary funds be secured? This is the problem to which the next chapters are devoted.

CHAPTER XX

THRIFT AS A WORKING POLICY

Your ship can't come in unless you send one out.

Financial Preparedness

The number of persons who believe that they could make a fortune if only they "had the money" is astonishingly large. Opportunities appear; they are detected, but owing to financial unpreparedness they cannot be grasped. The difficulty and how certain men with such notable success have solved it, appears well illustrated in the following incident drawn from the early career of H. C. Frick, the "coke king" and multimillionaire.

In company with two partners, Rist and Tinstman, Frick had early engaged in the coke business. The panic of 1873, however, which littered the country with financial wrecks, plunged the firm into bankruptcy and the two partners very much desired to liquidate their holdings. Although young, relatively inexperienced, and already burdened with more debt than capital, Frick so believed in the future of the coke business that he sought out Pittsburgh's principal banker and staggered him with the size of the loan he wished to negotiate.

Mr. Forbes, in "Men Who Are Making America," tells the story as follows:

Judge Mellon sent a man (an uncle of W. E. Corey) to Broad Ford to investigate the character and caliber of this daring Napoleon of finance. Instead of finding H. C. Frick to be one of the leading citizens of the place, living in sumptuous style and owning a wealth of property, the investigator discovered him to be merely a youth of 24, employed as

a bookkeeper and living, not in a mansion, but in two small rooms over a drug store. Inquiry elicited the facts that the young man was held in the highest regard, that his industry and ability were the common talk of the place, and that his handling of the new coke concern had proved both able and successful. Judge Mellon, instead of feeling disappointed over the humble circumstances of the would-be borrower, decided that a young man of such enterprise, talent, and courage, with horse sense enough to live on a few dollars a week in order to increase his capital, deserved to be helped. So the loan was granted.

Not only did Frick buy out his two partners, but he gathered in other properties at bankruptcy figures. Frick's readiness to buy or lease other coal lands and coke properties—the whole coke industry amounted to only a few hundred ovens—caused the townspeople to look upon him as a lunatic. . . .

The return of financial calm found Frick the sole owner of Frick & Company. Output rose above fifty tons a day and the price went from ninety cents to above two dollars; later (1879-80), when the boom set in, coke soared to above five dollars a ton, and every day the sun rose Frick sold over \$30,000 worth of the fuel and pocketed a net profit of over \$20,000.

Building Solidly

The business man with his enterprise under way needs, even after his own powers of brain and physique have been developed to their utmost, certain reinforcements if he is to attain a really notable career. He has to utilize capital for this reason. Inevitably the alert, forward-looking executive sooner or later is a seeker of funds.

The seeker of funds in the person of H. C. Frick was a man who had thoroughly mastered his financial A B C's. He had learned, never to be forgotten, the essential rudiments of the financier's language and he had practiced finance's basic virtues. Those whom he approached for funds, recognized that he knew full well the value of a dollar. The business man uses the dollar as the unit that measures his capital. It stands as the measure of his plant, his equipment, his stock-in-trade,

his armament for the competition of commerce. If he does not realize its value, its power, its force, he will not know how to use it, how to handle it, how to care for it. Unless some other has earned it for him, he is not likely, in such case, ever to have much to use, and so will fail to hold his own, for lack of tools to work with, weapons to fight with, and capital with which to command success.

American Habits of Waste

The basis of financial power is laid in those elementary habits of prudent spending and wise saving, which boys should, though unfortunately they do not with anything like the thoroughness desired, receive as an essential part of their early training. Prevalent habits too commonly are opposed to such soundness of financial training.

"Americans are the most reckless spenders in the world," says the president of Sears, Roebuck and Company, Julius Rosenwald. "The average man in this country is spending every dollar he makes and maybe more."

\$500,000,000 annually is the waste represented by our smoking factory chimneys.

\$30,000,000 worth of waste paper, approximately, is burned in the United States every year.

\$2,500,000 is spent for suppers, theaters, cabs, liquors, tips, and the like, in New York City on New Year's Eve. Since every community has its counterpart of New York's "Great White Way," this extravagance and folly is widespread.

The value of thrift during the Great War was accentuated among citizens of every belligerent country. Yet the struggle for a higher plane of living and the need for capital are with us always; we need no war to teach us to practice the commandments of an enterprising frugality. Thrift is a

virtue, whose services the personal manager can always find it worth while to utilize.

Value of Thrift

"If you want to know whether you are destined to be a success or a failure in life, you can easily find out," said James J. Hill. "The test is simple and it is infallible: Are you able to save money? If not, drop it. You will lose. You may think not, but you will lose as sure as you live. The seed of success is not in you."

Thrift is a security against adversity.

"Save a little of thy income," said Benjamin Franklin, "and thy hidebound pocket will soon begin to thrive and thou wilt never cry again with empty stomach, neither will creditors insult thee, nor want oppress, nor hunger bite, nor will nakedness freeze thee. The whole hemisphere will shine brighter and pleasure spring up in every corner of thy heart."

Thrift develops the business character.

"Extravagance rots character; train youth away from it," said Theodore Roosevelt. "On the other hand, the habit of saving money, while it stiffens the will, also brightens the energies. If you would be sure that you are beginning right, begin to save."

Thrift helps to establish credit.

"Before you are taken into partnership and given a chance to spend the funds of the firm," wisely declared Elbert Hubbard, "you must give evidence that you know how to care for your own. The worthless, the shiftless, the insincere, the always needy, never get ahead and at the bank they are unknown."

Thrift enables you to take advantage of opportunities.

This is its main service. It represents in operation the foundations of a financial preparedness.

Plans Suggested for Saving

The thrift policy, however high it may eventually transport a man, has its foundations in the humble and too frequently despised virtue of making small savings. Since the desire to run before one has learned to crawl upsets many a career, those who wish to get into the spirit of capital accumulation, to learn its language, and to operate with it effectively, should resolve first of all to become thrifty; more than that, resolve to practice some certain concrete plans for saving until thrift has taken firm root as a habit.

Like nearly all of our positive activities, saving must first be accepted as a principle of action and then followed persistently until it becomes a habit.

There are several concrete plans for saving that are worth noting:

I. *Saving from Income All Possible.* A man may resolve that out of his earnings he will always save as much as he possibly can. As a boy digging potatoes, Mr. Rockefeller reached the conclusion that money was to be his slave and it is clear that he early realized the importance of the habit of saving. In his first position as clerk and bookkeeper he had earned from September 26, 1855, to January, 1856, fifty dollars, out of which, he told the members of his Sunday-school class years later, "I paid my washerwoman and the lady I boarded with, and I saved a little money to put away." This careful financing, the items of which the young man daily recorded in the small ledger which has since figured in its owner's religious instructions, proved solid as a foundation for the credits he later sought. Mr. Rockefeller had the ambition to get on so firmly ingrained that it was probably easier for him to put by every cent he could spare than to spend it on self-indulgence.

Those of social habits, surrounded by free-spending com-

panions, and in whom the will to save is not well developed, probably will find the plan to save all that is "possible" too general for them. The plans which follow are more definite and put a person under closer restraint.

II. *Saving a Definite Sum or Percentage.* A man can calculate how much of his income he requires to pay living expenses and how much he should lay away. Then each time he receives his salary or other income, he will set aside and religiously put away that amount (preferably in a savings account). Or instead of a definite sum it can be a definite percentage, as 10 per cent or 20 per cent of all earnings. To carry this plan out effectively is easier for most men and will produce better results than to leave the amount to be saved indefinite.

The man who has decided that upon the receipt of his salary check each month \$5, \$20, \$50, or whatever he has determined on, *shall be set aside without fail*, has made a definite move toward financial independence.

III. *Investing on the Partial Payment Plan.* The flotation of successive Liberty Bond issues has done much to popularize this plan of investment, although the plan itself had already been in operation for several years. The terms of the partial payment plan, because they are so extremely flexible, adapt themselves to everyone's circumstances. The man with capital can invest it at once, and by adding a part of his outside income regularly, finally become the owner of bonds and sound dividend-paying stocks. It is therefore unnecessary to wait until the money required for full payment has accumulated, because the dividends paid on the securities are credited to the partial payment owner and these dividends usually exceed in amount the interest charged on his net indebtedness.

IV. *The Plan of Cash Payments.* In conducting a house-

hold or in the matter of personal expenditures it is very convenient to have accounts at one or more good stores and then buy as required and settle at the end of the month.

The fact that this is so easy and convenient tempts a person in a simple yet seductive way to live beyond his means. The salesman is persuasive, the time of payment is far off, and it is so much easier to have the attractive articles charged than to deny oneself and withstand the salesman's skilled appeal to our desires. The consequence is that when the end of the month comes the head of the house is appalled at the sum total of the charge accounts.

Advertising and salesmanship have become arts, taught in schools and through text-books, and it has been well suggested that buyers should likewise be instructed and warned so they can understand how they are persuaded into purchases they do not need and prices they cannot afford.

Pending this course for buyers, the adoption of a rule to pay cash will have an excellent effect in reducing expenses. Many things lose their appeal when cash outright must be paid, and at times the less expensive article is found to be equally good.

V. The Budget Plan for Controlling Expenditures. The budget when applied to personal expenditures has two important advantages; it calls for planning and it provides checks upon funds both received and spent. When all expenditures are itemized and examined, unexpected wastes are revealed and opportunity is afforded to secure more complete, because better planned, gratifications while the savings fund is safeguarded.

The habit of mapping out and carefully deciding how income shall be apportioned to the cost of living for an individual or for a household is of great importance. The same principles prevail here that regulate budget-making for businesses, municipalities, states, and governmental departments.

This method develops thrift, foresight, and economic intelligence. It necessitates the classification of expenditures into necessary and discretionary. It reveals the small and unconsidered expenses that mount up so astonishingly. It promotes a wise spending and a judicious economy. In itself it is a business discipline and training of intrinsic value for every man and also every woman. To estimate the proportionate amount of expenditure for the various items that make up the cost of living is not particularly easy, but as a start it is advisable to run over the outlays for the preceding year and divide them as accurately as may be possible. One who has never done anything like this, will have some surprises when he finds where his income has gone. Also, it will show at once some directions in which economy is possible.

Then take the separate division and assign to each its proportion of next year's income. In doing this begin with the most important. The figures given below are for a suburb near Philadelphia, as prices were in 1917 for a family of five with an income of \$2,400. The same general budget can be worked out for any scale of family expenditure.

Food	33 $\frac{1}{3}$ %	\$800
Rent	20%	480
Operating expenses.....	15%	360
Clothes	15%	360
Advancement	16 $\frac{2}{3}$ %	400
	<hr/>	<hr/>
	100%	\$2,400

"Operating expenses" are for fuel, light, laundry, medical and dental expense and depreciation of household plant.

"Advancement" covers all expenditures for education, philanthropy, religious causes, books, music, amusements, vacations, and social and community life. Insurance and savings and additions to household equipment would come under this head, unless a specific deduction for their purposes is made from income before allotting the budget.

If the result exceeds the income or leaves but a negligible sum for savings it is necessary to cut down and the analysis must proceed further. Food can be divided and the amount computed for meat, fish, bread or flour, fruit, milk, eggs, sugar, and so on. Before the war economies enforced a reform many American families put a great many dollars into their garbage pails. A great deal of money is expended for clothes that are unnecessary and bought without much discretion.

The Family Standard of Living

The attempt to bring expenditures to a rational basis must, of course, proceed with a due regard to one's social position and the whole range of interests which make life worth while. Man is a gregarious and social animal and his life and activities are to be spent with his fellows. His future success and influence depend most largely on his ability to work and do business with and among his fellows. To acquire any ease and facility in social life, one must dress, live, and enjoy oneself as those do who are on the same plane. Many social requirements and usages are unreasonable, not to say absurd, yet even the wisest men have to be careful not to depart too far from the standard.

At the same time, if at the end of each month there is not quite enough to meet all the bills; if an unexpected sickness means borrowing from a relative or a friend; if the home life means stress and anxiety instead of rest and contentment, then business efficiency is at stake and good executive work is impossible. Mr. Micawber's sage reflection applies:

Annual income twenty pounds, annual expenditure nineteen pounds, nineteen shillings, six pence; result—happiness. Annual income twenty pounds, annual expenditure twenty pounds, aught, and six; result—misery. The blossom is blighted; the leaf is withered; the God of day goes down upon the dreary scene, and—and in short you are found flooded.

The foregoing plans, taken as examples of the various methods a man can devise for himself, indicate quite clearly that every one can save systematically and that he can commence now.

The Productive Use of Funds

The policy of saving and careful scrutiny of expenditures, however meritorious in itself and capable of practical operation, must not be permitted to destroy a person's financial perspective. Otherwise, he trudges down the dusty highways of business adding dimes and nickels to his store, whereas with perspective he might have amassed a notable fortune. What is the rôle of saving in our scheme of personal finance? "I do not mean to argue—I am not such a fool as to argue—that it was by mere thrift that colossal fortunes have been accumulated," says the Earl of Rosebery, in speaking upon the question which has just been raised; "but I am here to argue my profound faith that they were in the commencement founded on thrift and on nothing but thrift, and that when by thrift a small but substantial sum was accumulated, it was so utilized as to amount to these enormous fortunes."

The policy of *saving constitutes merely the foundation* of our scheme of finance, the training school in which the character is to be forged and the language of finance learned. Upon this foundation the business man's conspicuous gains are to be made through the productive use of capital.

EXERCISES

The attempt to introduce thrift into your affairs must not disregard the fact that its real foundation is earnings and earning power. Question No. 1 in the chart thus is highly significant. Does your showing, in your opinion, justify 20, let us say, as a grade?

No. 2 raises the question of what has become of the money you earned. Have you gone through the world sieve-like or do you now

have substantial accumulations? Needless to say, the term assets does not refer to money only but rather what you are worth all told. Suppose you have done 80 per cent as well as it appears to you, all things considered, you should; then your grade is $80\% \times 25$ or 20.

The close connection between thrift and readiness for opportunity has been emphasized in the chapter. How do you rank here, on the basis of 15 for full preparedness?

Do you appreciate a dollar for the full *time, labor, and "going without"* that it should represent?

Are you wasteful by habit? Are you wasteful in business management? Do you waste *time*, your own and subordinates'? Do you waste money? Do you waste *material*? Do you waste brain effort? Do you use your intellect on the most important things or on smaller matters? These are pretty broad questions. Nevertheless, survey your doings and if perfect check in 15 credits!

The last question, No. 6, emphasizes balance, "neither a miser nor a spendthrift be." Should you not get a 10 now, there is a chance to do so later on.

	COUNTS	GRADE
1. When I began working for myself my time was worth \$..... a day. After.....years it is worth \$..... a day.	25	
2. My total assets, the results of years' work, are This entitles me to a grade of	25	
3. I have \$..... ready money available for a good opportunity. This entitles me to a grade of	15	
4. Have I a fair appreciation of the time, labor, and sacrifice represented by a dollar?	10	
5. How much "thrift" do I possess in the saving of (a) time wastes, (b) money wastes, (c) labor wastes, (d) material wastes, (e) thought wastes?	15	
6. How near do I come to the happy mean between penuriousness and profuseness?	10	
Total Credits	100	

Test Chart 19. Chart for Self-Grading on Saving Money

CHAPTER XXI

THE ART OF INVESTING

Money can beget money, and its offspring can beget more, and so on.—BENJAMIN FRANKLIN.

The Business Man as an Investor

The business man in using his capital productively can either invest in other men's enterprises or finance his own. Let us discuss the investment side first, although it is often less important in practice than financing one's own enterprises.

The investor, desiring to make his money work for him, finds such openings as the following available:

1. Real estate mortgages
2. Loans on collateral
3. Savings bank deposits
4. Bonds
5. Preferred stocks
6. Common stocks

Each of these classes, again, contain securities of a wide variety. They may be issued by national governments, states, municipalities, railroads, public service corporations, banks, manufacturing and mining concerns, or any other of the countless enterprises seeking funds; in grade they range from the wildcat mining certificates scarcely worth the paper upon which they are printed, to the bonds of the United States Government, a premier security.

Qualities of an Ideal Investment

The task of selecting from this wide variety the appropriate investment will be simplified if attention is given the

qualities upon which investments are to be rated in desirability, viz., safety, income, marketability, appreciation, and suitability. Judged by these standards, the ideal investment would be safe, yield a high rate of income, command a market in which it is readily convertible into cash, preserve a market price free from wide fluctuations, afford good prospects of appreciating in value, and in general be suited to its holder's particular requirements.

Needless to say, a security meeting to the one hundred per cent degree all these tests cannot be found, hence in deciding upon the merits of various issues submitted to him for purchase the investor accepts the last test as the most important and rates the other qualities in the order of their value to him personally. According to recent quotations of the New York Stock Exchange a certain copper stock sold at a yield of 13.6 per cent and a railroad bond at 5.1 per cent, an industrial stock paying no dividends sold at \$92 per share, and a railroad stock once selling at \$255 a share was quoted under \$30. Which would be purchased? That depends largely upon *who* purchased. In other words, personal suitability is too often the important factor in buying securities.

Sources of Information as to Investments

In order to judge whether or not an offered investment meets his particular needs, the investor should possess sound information. One regrets to say, however, that the investor thus qualified is the exception, and it is also unfortunately true as a rule that the less one has to invest the more difficult it is to secure the full information needed. A man of means has friends who are shrewd judges of investments, he receives no end of expert advice from bankers, bond dealers, and brokers, and he has a full assortment from which to select. A man whose orders are limited cannot so easily secure such attention. Notwithstanding this is the case, certain reliable

sources of information are open to every investor and he can, if he will, learn a great deal about what he is purchasing and keep in touch with it after it is purchased. Excellent books are published on the subject and the financial papers will also be found very useful.

The experience of investors, both successful and unsuccessful, seems to indicate, when analyzed, certain elementary principles upon which good results depend. These will now be stated.

I. Diversifying Investments

Andrew Carnegie's advice to "put all your eggs in one basket, then watch that basket," no doubt is sound in so far as it concerns one's specialty; but the business man is not an investment specialist and the division of risk through diversification of purchases is accordingly with him the correct rule of procedure.

The accompanying table, prepared with the needs of the business man in view, shows how such diversification may be carried out. The yields on these issues vary from time to time,

A BUSINESS MAN'S INVESTMENTS

PROPORTIONATE AMOUNT	TYPE OF SECURITY
5 per cent	Government bonds
5 " "	Municipal bonds
5 " "	Public utility bonds
10 " "	Convertible bonds
10 " "	Railroad mortgage bonds
15 " "	Industrial bonds
10 " "	Copper mining bonds
10 " "	Railroad preferred stocks
10 " "	Industrial preferred stocks
10 " "	Industrial common stocks
5 " "	Railroad common stocks
5 " "	Copper stocks

of course, in accord with investment conditions, but in general, as this table has been arranged, these yields increase from top to bottom. Since there are various grades of issues in the subgroups of this list, the investor should secure from reliable financial publications and institutions the more detailed information needed at the time of purchasing.

II. Buying Periods and Selling Periods

It is wise to shift from one type of security to another as prices fluctuate. A comparison of the various grades of securities shows that, whereas all securities fluctuate in price, certain classes fluctuate much less violently than others. Gilt-edge bonds depreciate but little as a rule during a panic whose violence causes fluctuations of perhaps \$30 to \$50 per share in the common stocks of mining and industrial companies.

The average investor pays little attention to these price changes, his usual practice being to place his securities in a safe-deposit box until they mature or to sell them when alarmed over the business outlook or in need of money. Nevertheless, the plan of selling out during a bull period his lower grade securities and investing the proceeds in the gilt-edge division and during the following period of depression reversing the process, is entirely feasible and will net the investor a profit well worth his consideration.

III. Do Not Speculate

The investor who with discretion changes from one type of security to another when prices fluctuate is certain to profit. Yet he runs the risk of becoming so impressed by the swing of prices that the sense of ownership and the self-control which accompanies it are lost and he becomes an out-and-out speculator.

The investor's attitude toward his securities is that of

ownership; the speculator is interested primarily in taking advantage of price fluctuations and he cares little or nothing for permanent ownership.

An abundance of experience has proved this statement true: Speculation is the business of persons who know and the amateur who tries to play it without experience and careful study will lose.

The business man could learn to speculate, and no doubt successfully, but he already has chosen his occupation and changing to a career on Wall Street would scarcely be worth his while. Let him stick to his own line and, be it in merchandising, railroading, or manufacturing, as an expert there take shrewd advantage of those changes which yield profits. In the field of the skilled speculator, which is outside his specialty, let him maintain self-control and refuse to stake hard-earned money on his ability to play another man's game. The lamb in Wall Street is attempting against heavy odds to play another man's game, which explains why, sooner or later, he always is shorn.

IV. Slow but Sure Investments

The itch for high yields has cut short many an investor's career, because it emphasizes haste at the expense of orderly progress. Consider a compound interest at four per cent: Ten dollars deposited weekly in a savings bank will earn at four per cent \$7.80 in interest, making a working capital of \$527.80 at the beginning of the second year. If the plan is continued, at the end of the second year the total has become \$1,076.70; at the end of the fifth year \$2,858.60; at the close of the tenth year \$6,336.50. In fifteen years this steady saving of ten dollars a week amounts to \$10,567.90; in twenty years \$15,715.90; in twenty-five years \$21,979.20. This sum in itself even though no further deposits were made would earn \$879.10 a year. Yet forty dollars a month saved would

represent no serious effort on the part of great numbers of men.

Supposing the diversified investment that has been recommended yields only five per cent and that nothing additional is gained through appreciation, a young man who commences at the age of twenty-five to invest \$1,000 annually will build up the following snug fortune:

He will be worth	\$13,210	at the age of	35
" " " "	\$22,660	" " " "	40
" " " "	\$34,720	" " " "	45
" " " "	\$50,110	" " " "	50
" " " "	\$69,960	" " " "	55
" " " "	\$94,840	" " " "	60

Theoretically, get-rich-quick methods are an easy road to wealth. Actually, the amateur who attempts such methods is shorn of his savings while the less spectacular but systematic investor builds up a comfortable competence. When tempted to "take a flyer" put compound interest to work!

V. Avoid All Get-Rich-Quick Schemes

The post office department estimates that for a long time the people of the United States have lost by fraudulent schemes carried on through the mails \$100,000,000 annually. Worthless real estate developments, fake oil wells, "world-beating" inventions, "bonanza" mines, and the like, with gaudy prospectuses and extravagant claims, have duped generations of credulous investors. In their attempts to get something for nothing these victims of the get-rich-quick schemer, it is needless to say, have ignored sound information, for the truth as it is never stirs the fancy of such gullible people. They are the dupes in reality of their own cupidity and ignorance.

The more experienced the investor the better qualified he is to deal in speculative issues such as industrial common stocks, junior bonds, securities undergoing reorganization,

and mining stocks. Yet strange as it may seem such skilled investors are most in the habit of buying issues of high grade, whereas the unskilled are found putting their money into the most risky issues. It seems to be a case of fools rushing in where wise men fear to tread. Occasionally the rash speculator will quite by accident make a considerable winning, but the chances are hopelessly against him and in the long run it is not he but the conservative investor who amasses a competence.

EXERCISES

Some Personal Questions as to Investing Money

George Horace Lorimer in "Letters from a Self-Made Merchant to His Son," says, "Whenever anyone offers to let you in on the ground floor, take an elevator to the roof at once."

How much have you lost so far by investing in mines, patents, rubber plantations, etc.? Have you *personally known* anyone who has so parted with his money? Have you *personally known* anyone who made a profit on such ventures?

Is it wise to try to buy when the market is low and sell when it is high? How much time should be devoted to watching the markets for this purpose? Would a man's employer be favorably impressed by this outside interest? Why not?

Enumerate some investments that are safe. Some that can be readily turned into cash. How high a rate of interest or of dividends can be had in moderately safe securities? What is the objection to putting money into mortgages on real estate? Into loans on collateral? Into investments on real estate?

In Francis Cooper's work on "Financing an Enterprise" a chapter is devoted to "The Investor's Questions." These questions are comprehensive and are planned to cover broadly all those points upon which the investor has a right to be informed. Lack of space precludes their inclusion here, but it may be said that anyone reading that chapter before investing will be astonished to find how much he should know and how little he has been told of the essential matters relating to the proposed investment.

What are the advantages of so-called "slow investments"?

CHAPTER XXII

THE FINANCING OF A BUSINESS

The ideal conditions for the financing of an enterprise involve a good proposition, well presented at the right time to people who have money to invest, by a man who commands their business and personal confidence.—FRANCIS COOPER.

Where the Real Profits Are

The chapters which have preceded deal with matters which while essential are often merely stepping stones toward that all-important matter for the young business man, i.e., the financing of a business. The three essentials of a successful enterprise, it may be recalled, are:

1. A sound undertaking.
2. Efficient management.
3. Sufficient capital.

Having schooled himself in the A B C's of finance—the careful saving, thrift, and scrutiny of expenditures—and having learned the investor's viewpoint through first-hand experience, the young business man now turns to the problem of obtaining sufficient capital with a considerably increased assurance.

Methods of Financing

When a business man has the means it would seem natural for him to finance out of his own funds any enterprise in which he is interested. Yet cautious and conservative business men do not always care to do this. A man may believe in a proposition, and he may feel sure the chances are all in its favor. He knows, however, that the best laid plans of men and mice

"gang aft alee." If he has lost some of the energy and optimism of youth he will see risks and possibilities of failure, and he prefers to spread the risk, even though in so doing he may also spread the profits.

The young man on the other hand usually prefers to take all the risk and retain for himself all the possibilities of profit. Usually though he has not sufficient capital of his own to float his enterprise unless he is content to begin in a very humble way and work up by gradual development and must perforce offer to others a share in the enterprise. This share may take the form of a partnership or a stock holding.

The three methods of financing a business most commonly employed are as follows:

1. Borrowing at interest.
2. Sharing profits among partners.
3. Forming a corporation.

Rockefeller a Shrewd Borrower

The ability which John D. Rockefeller has displayed in borrowing money accounts for not a little of his remarkable financial success. In the early days when Mr. Rockefeller in partnership with a Mr. Andrews entered into the refining of oil, the firm's capital was limited and the rapid growth of the business found the two partners often needing money. It was the senior partner, low-voiced, soft-footed, humble, knowing every point and every man's business, "smooth," "a *savvy* fellow," as the neighbors described him, who then set out to borrow and rarely if ever did he fail.

"There is a story handed down in Cleveland from the days of Clark and Rockefeller, produce merchants, which is illustrative of some of his methods. One day a well-known and rich business man stepped into the office and asked for Mr. Rockefeller. He was out and Clark met the visitor. 'Mr. Clark,' he said, 'you may tell Mr. Rockefeller, when he comes

in, that I think I can use the \$10,000 he wants to invest with me for your firm. I have thought it all over.'

" 'Good God!' cried Clark, 'we don't want to invest \$10,000. John is out right now trying to borrow \$5,000 for us.'

"It turned out that to prepare him for a proposition to borrow \$5,000 Mr. Rockefeller had told the gentleman that he and Clark wanted to invest \$10,000!

" 'And the joke of it is,' said Clark, who used to tell the story, 'John got the \$5,000 even after I had let the cat out of the bag. Oh, he was the greatest borrower you ever saw!'

Why Borrow

This episode concerning Mr. Rockefeller evidently in its teachings is at variance with the old idea of borrowing—the sad result of misfortune, of improvidence or prodigality, but in no case a legitimate business operation in which both parties benefit.

This point of view is well expressed by Polonius to his son:

Neither a lender nor a borrower be,
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.

This advice of Polonius to his son is eminently sound if the young man was extravagant and in danger of expending his money without adequate returns. Yet this is not the business man's attitude toward borrowing. He borrows because the money under his direction, he is convinced, will return more than its interest charge. Upon this basis he appeals to possible lenders for funds.

Confidence a Business Asset

The chief test of one of the world's greatest lenders, J. Pierpont Morgan, was that described by him shortly before his death: "I have known a man to come into my office and

I have given him a check for a million dollars, and I knew he had not a cent in the world." In other words, in the estimation of the greatest banking house in this country, character was sufficient collateral upon which to loan a million dollars.

Character was ranked by Mr. Morgan as the chief test but, needless to say, it is not the only test. The sum total of these tests, in brief, is confidence—and confidence is something which can be cultivated in the minds of those having funds and can be developed by others with projects requiring from time to time outside funds. In other words, credit is a plant whose growth can be nourished by whoever sets about it properly. The detailed ways and means are exceedingly numerous, but the general principle is clear—if you wish to borrow money, develop the confidence in the minds of those who control funds that their money will be safe in your hands and that they will receive a satisfactory return for its use.

Borrowing for Business Purposes

Borrowing money to finance a business introduces the matter of regular fixed charges for interest, with the attendant danger of foreclosure and loss of the property in case these are not met when due. Yet under normal conditions it permits the original parties to retain their control of the enterprise and the rate charged is not serious compared to what the profits of the enterprise should be. If on the other hand an enterprise ends in failure the loaning plan is disastrous—far more so than if the money were secured as an investment in the first instance. For this reason many business men with good credit and well able to borrow all the funds they need, prefer to secure part of the capital they require for the new enterprise as an investment and not as a loan. In this way they divide up the risk. They do not look for failure but they recognize its possibility in any enterprise no matter how sure

a thing it may seem. Therefore they prefer to lessen their own risks by sharing the profits to be made rather than take the chance of total and perhaps disastrous loss in case of failure. It is true that interest on money borrowed is usually less than the profits of a successful business and that to give a share in the business for the loan of capital often seems to promise a big return for a small favor. There are other dangers connected with borrowing besides those mentioned above.

Loans and interest payments have a tendency to become due at inconvenient times; or if left to run after they become due, may be called unexpectedly. If not met they may be used as a means of forcing the business into bankruptcy and buying it for a mere song. As a matter of fact loans are often made to the owner of a promising enterprise with the hope or expectation that he will not be able to repay the amount when due. If this happens the lender promptly forecloses, the business is forced under the hammer or it becomes bankrupt, and he buys it at a fraction of its real value. To secure properties in this way is considered by those who engage in the practice to be smart business and entirely legitimate. The fact that it is done and can be done should always be borne in mind when loans are made. The agreement should provide for extensions of time when necessary so that the borrower may have the opportunity to raise funds elsewhere. In this way the first lender can be repaid if he insists upon calling in the loan.

Financing By Means of Partnership

These limitations on borrowing cause oftentimes recourse to moneyed partners. This is but a modification of the usual plan of securing money as an investment in the enterprise—usually in the form of stock subscriptions—but it has some special advantages and disadvantages of its own.

A very important point to be considered when a financing partner is to be taken into a new undertaking is the fact that

should the enterprise not reach the point of self-support before its funds are exhausted—a contingency that frequently occurs—the conditions are not favorable for securing further money. Under such circumstances, each partner should, of course, contribute pro rata according to his interest, but in practice the original owner is usually unable to increase his investment and it not uncommonly happens that the “financing” partner declines to increase his.

Sometimes the moneyed partner refuses because he thinks the management of the business has been poor and that therefore the “working” partner, who is responsible for this, should bear the burden of securing additional funds. At other times, he declines from purely selfish reasons, thinking that the working partner’s interests are sufficiently large to force him to pull the enterprise out somehow unaided. On rare occasions help is refused because the financing partner hopes that the embarrassment of the business will result in conditions which can be made to serve his own interests, possibly resulting in his acquisition of the whole enterprise.

In any such case, the working partner must do the best he can. He may be able to borrow, or he may have to make very material sacrifices of his own interests to obtain the needed funds. In such case, if the enterprise is successful, he will be able to recoup himself. It is, however, far better that the possible need of more funds should be anticipated and provided for in advance by some provision of the partnership agreement. It is better still to avoid the contingency by the incorporation of the undertaking.

Selection of a Partner

It should be borne in mind that a partner has all the rights in the business that the original owner has himself. He can interfere in the management of the enterprise, run it into debt, if he sees fit, or make trouble in many other ways.

All this is of no importance if the partner is known to be the right kind of a man, who will shoulder his part of any burdens to be borne and who can be depended upon to co-operate when needed and to do nothing when not needed. If, however, there is any doubt as to the character or disposition of the prospective partner, this close alliance should be avoided.

A man must be a good judge of character to be able to select the right kind of man as partner. Two of the ablest men among the partners of the banking house of J. P. Morgan were selected by the international banker solely because they appealed to him as business men. Henry P. Davison, when vice-president of a New York bank received an invitation to call on Mr. Morgan at his private house at three o'clock in the afternoon. He had met Mr. Morgan on two or three occasions only and did not consider himself anything more than a casual acquaintance. Promptly at three in the afternoon the young banker rang the bell of the financier's residence and a few minutes later the two business men were talking in the library. Morgan wasted no time in preliminaries: "Are you ready to become my partner on January 1?" he asked. The query nearly took Davison's breath away. He parried in reply: "Mr. Morgan, have you ever fallen from an eighteen-story building?" It was the financier's turn to be bewildered. "No," he replied, "why do you ask?" "Well, neither have I. But I thought if you had you would understand how I feel." Then Morgan laughed and a few minutes later the matter was settled.

The Corporation

The partnership is the old, familiar system of business organization, easily formed, as easily dissolved, informal, uncertain in action, and frequently unsafe. Enterprises of large size are but seldom financed under the partnership form. Its use for enterprises of any size is of doubtful wisdom.

The corporation, on the other hand, is an efficient and widely used system of business organization. It is created by a charter, granted by the state upon application of the interested parties. The corporation so created is for all practical purposes an individual, carrying on business, making contracts and suing or being sued in its own name. It is entirely separate and distinct from its members who may die or withdraw without affecting the corporation. It is subject to the general laws of the land and the special laws of the state just as an individual.

The advantages of the corporate system are several. The first and most obvious is the freedom it offers from the liability which characterizes the partnership. A partner is liable for all debts of the partnership. In a corporation a stockholder is not ordinarily liable for any of its debts. A purchaser may acquire a single share or a hundred shares of stock in a corporation and—if the stock is full-paid—go on about his business with the full assurance that he cannot lose more in that enterprise than the amount of money paid for his share. No matter what happens to the corporation he cannot be involved beyond the loss of his investment.

The second great advantage of the corporation is the convenience and flexibility of its arrangements. The smaller investor may be provided for equally with the man putting in hundreds of thousands. Each has his proportionate interest and his proportionate rights. Also, under the corporate system almost any desired business conditions may be effectively provided for and preserved. Its adaptability in this direction is remarkable. Enterprises of the present day are carried on almost uniformly under the corporate system.

The one material objection urged against the corporate system, as a means of conducting enterprises, is the absolute control which is exercised by the majority stockholders. It must be admitted that this objection to the corporation does exist and that it may be a serious one unless expressly provided

against. On the other hand, the same objection exists to any form of business organization. The majority must and always will rule. Their absolute power may, however, be so modified in the corporation by provisions for minority representation and by charter and by-law limitations on the power of the majority, that its objectionable features are largely or wholly removed. The corporation then becomes the safest, the most effective and the most generally desirable form of business organization known to the industrial world.

Adequacy of Capital

The necessity for capital in the development of a new business will not be questioned. A sharp difference of opinion is, however, likely to exist as to the amount required. Especially with young or inexperienced men the almost invariable tendency in calculating the necessary expenditures and the probable receipts of a new enterprise is to seriously minimize the one and to greatly overestimate the other.

It is a simple matter to take pencil and pad, sit down, figure out the necessary expenses of the new undertaking, add a percentage for incidentals and, to be fair, a further allowance for overhead, and deem the matter settled. The experienced business man, however, knows that at every stage and step of development there are delays, changes of original plans, unexpected requirements, failures of expected revenue, and along with it all, endless incidental but unavoidable expenditures that bring the sum total up far above anything that would at first sight seem possible. Because of this inevitable and unconquerable tendency of expenses to swell far beyond the expected limits the inexperienced man should either consult some friendly expert familiar with the particular line in which he proposes to embark, or otherwise allow a liberal percentage for incidentals and operating margin, and beyond this a considerable amount for the unexpected.

This is the more important because of the very great difficulty of raising further money for enterprises when the original funds are exhausted before the enterprise reaches the condition of self-support.

When an enterprise is first presented, if the proposition and conditions are favorable, it is nearly always possible to raise the amount thought necessary for its purposes, and it is a measure of wise precaution to secure a treasury reserve of cash at this time sufficient to carry the company through to success. If this is not done or the funds provided prove to be insufficient and are exhausted before the enterprise has reached the point of self-support, the condition is peculiarly unfortunate. The failure to pull through is hard to explain, the enterprise is discredited, and the whole thing is looked upon as a "lame duck" if not a complete failure.

Under these conditions, to secure more money on any ordinary basis is almost impossible, and if it is accomplished, the "carrying" individual or syndicate usually demands, and perforce receives, payment out of all proportion to the amount of the investment.

Such a situation should as stated be avoided by a sufficient provision at the time the enterprise is launched to carry it safely through to the point to be attained. If the amount required for this cannot be obtained at the time, the enterprise should either be held back until the required sum can be secured, or the development plans be so modified that the amount in hand will suffice. To do otherwise is to invite disaster.

On the other hand, the position of the enterprise which has reached a point of self-support and moderate returns, but which must raise more capital before further progress can be made, while not exactly favorable, is still far superior to that of the stranded enterprise. It is beyond the dead line. It has life and vitality. It is neither a suppliant nor a forlorn hope. The risks of investment in it are minimized and there

is a certain degree of attractiveness about it that makes the raising of additional capital very much easier. The situation is not an uncommon one and the ordinary methods of securing capital may, as a rule, be used with success.

EXERCISES

The financing of an enterprise involves numerous problems, into the details of which it is interesting for a prospective manager and proprietor to penetrate. The study of certain of the books listed in Chapter XXIX will supplement excellently the necessarily brief discussion contained in this work and enable the young business man to handle the financial problems of his business with a surer hand.

The problems themselves center in such questions as:

Amount of Capital Needed

How much capital is needed to start the business?

How much is needed for working capital?

Borrowing

What sources of credit have I?

How much capital can be secured from these sources?

By what means can my borrowing capacity be increased?

Partnership

What advantages in partnership? What disadvantages?

Could the capital required be secured more effectively by taking in partners?

Incorporation

What advantages in the corporate form of organization?

What disadvantages?

To whom could I sell stock in this enterprise?

Building Up the Business

Should I build up the business myself clearly—learning as I go?

Had I better hire others to manage it for me?

Can I afford to give full time to it?

Is it better to consider it a side-line?

CHAPTER XXIII

THE EXECUTIVE'S LEGAL PROBLEMS*

Law is, after all, only the formulated rules of human conduct, a code of procedure and interpretation which is the outgrowth of the daily affairs of men.

—ALFRED BICKNELL.

Help versus Hindrance

The financing of a business discussed in the preceding chapters concerns vitally the executive's future—whether his enterprise is to wither into nothingness or develop into the flourishing concern upon which his ambitions are set. The latter result, a competent business man so much desires that he spares no effort—disdains no assistance which will aid him to reach it, and gives full heed to every possibility of danger which might defeat his end. In both of these directions—aids and safeguards—a knowledge of business law will help him.

The law sets up certain standards for the guidance of conduct, as the executive discovers, adversely or beneficially, again and again. Too often, unfortunately, business men conceive the law to be something of an arbitrary nuisance, a source of friction and a hindrance to them in carrying out their dealings. It is true that there are placed upon the statutes numerous laws which affect business unfortunately, and that with respect to many details and methods of court procedure the law's workings are costly and cumbrous. These deservedly are criticised by men schooled in modern methods of efficiency.

Nevertheless, business men must recognize in fairness that part of their objections, possibly a very large part, toward certain statutes are in reality not directed justifiably at the law

*Legal portion prepared by Messrs. Conyngton and Shidle.

itself and those who enforce it, but at those responsible originally for its passage. Moreover, the irritations caused them by what they term the law's arbitrariness must not be permitted to obscure the very great benefits secured from our legal system.

The Law of the Land

Business flourishes only where law prevails. No great business development is possible until a country has become civilized enough to have settled laws and orderly legal procedure. In countries like Mexico and the Balkan States no great business establishments are to be found and the great resources of these countries are not developed, or they are operated by foreign capitalists who rely for protection on the strong arm of their own land. The rule of each man for himself without regard to the just claims of others leads inevitably to savagery and stagnation.

As business is thus dependent on the existence of law and order, it follows that the greatest business development is found in those countries where there are established laws and settled government, which can be counted upon to operate in the same general way at all times.

In our own country we are fortunate in having one of the most advanced systems of law to be found in the civilized world. Its beneficent operation has always been ours and like the air we breathe or the water we drink we consider it a part of the order of nature, which it is not. All we enjoy of personal freedom and safety of life and security of property has been won by conflict, courage, and sacrifice on the part of our fathers. The so-called natural rights to life, liberty and the pursuit of happiness, are not found in a state of nature. They are the fruits of a long, painful struggle by our forefathers who loved liberty and self-expression. When these rights were won they were embodied in our system of

laws and government. We should prize all these more if we remembered how much they cost and how bare and hard our life would be if they were swept away and each man had to depend on his own arm and skill to protect himself, his family, and his scanty belongings from forces of fraud and aggression.

Relation of Law to Business

A business man should realize that while our system of law regulates business in manifold directions, his industrial existence depends upon the fact that we live in a country of orderly government, and that the laws for the protection of property and the enforcement of contracts rarely fail to give the security to him that they should.

Most business operations are made possible only by the fact that we live under settled government according to which the rights of each party to a business transaction are defined and can be enforced. The object of all law is to define rights and to provide a remedy when those rights are infringed. In all of the law, the primary purpose is to do justice, to protect the man who is trying to do business fairly, and to check and restrain those who violate the law and who refuse to observe their contracts and obligations. In practice it is too often cumbersome and costly, but its theory is sound and its aims are the highest. Because it exists and can be invoked when necessary we are able to do business and collect what is owing to us and are protected from theft, injustice, and extortion. Our business goes on day after day, and robbery, fraud, and blackmail are exceptional. Most business men do business squarely and neither do nor suffer wrong and rarely have anything to do with the courts. It is to be remembered that for one case where a man has to enforce his rights through the somewhat tedious and costly procedure of our courts, there are nine hundred and ninety-

nine cases where those same rights are enforced merely by the fact that the law exists, so that if the contract were broken, or the right denied, the injured party could have recourse to the law.

The Law of Contracts

Certain parts of the law of the land so particularly affect business and business operations that every man who engages in business must have clear ideas on these subjects.

For example, the law of contracts enters into every day's work. In fact, the major part of many businesses consists of making and fulfilling contracts. Notwithstanding this, it is strange how many otherwise intelligent business men are not clear on the elementary principles of contracts. To make a contract binding, certain things are requisite. Some contracts must always be in writing. Some other contracts will be implied without the parties saying anything about coming to an understanding or making an agreement.

An interesting case which came up a short time ago involving a prominent New York real estate dealer, illustrates well how a knowledge of business law may save the costs of expensive and needless litigation.

The New York dealer offered by letter a city lot to a client in Hot Springs, Arkansas, on January 30th. On February 7th, the client wrote accepting the offer on the terms proposed. On the same day, owing to changed real estate conditions, the dealer wrote to Hot Springs withdrawing his offer. The client's acceptance reached New York on February 9th. The Hot Springs man claimed that the dealer must fulfill his original offer because the acceptance had been sent before the letter of withdrawal was received.

His claim was upheld by the court on the ground that "an offer made by letter which is to be answered in that way cannot be withdrawn unless the withdrawal reaches the party to whom

it is addressed before he has accepted." A familiarity with the fundamentals of business law would have saved this real estate man both money and time.

Another point on which business men are apt to be careless is the necessity of being able to prove contracts so that in event of any subsequent disagreement it is possible to show exactly what the real agreement was. To enforce a right in court, evidence is necessary. Many, many times good cases are lost because the injured party cannot prove what he knows is true. A business man should know exactly what evidence is required for any contract he makes.

Again, some contracts are illegal and cannot be enforced. In most cases this does not necessarily mean that those making the contract are liable to any penalty or that there is anything criminal in the contracts, but for reasons of public policy the courts will not enforce them, but will leave the party to such an agreement without any remedy.

Again, some contracts can be enforced according to their terms and the parties who make them must perform them specifically. In other cases, when a party refuses to perform his part, the only remedy is to sue for money damages for the breach of contract.

The contract of sale is such a common one that at the present time business men are trying to secure the adoption of a uniform law concerning it in every state of the Union. Such a law has already been adopted in about fifteen states. In those states where it has not been adopted the same general principles prevail. It is obvious that the business man should know by heart the essential features of the law governing contracts of sale.

The Law of Agency

Another matter that continually comes up in business is the law of agency. Most men act at times as agents for

others. At other times they themselves will deal through agents who represent them and again at other times they will deal with agents representing other parties. This is such a common relationship that every business man should know just what are the rights and powers, and duties, and responsibilities of agency.

Business Organization

Again, there is the matter of business organization. Partnerships are not used as much as they were formerly, but at some time or other almost every person is involved in some sort of partnership relation with other people and his liability may be very serious. He should know enough to avoid such liabilities unless he really intends to "shoulder them."

At this time most of the important business of the world is done under the corporate form and this makes a knowledge of corporate procedure and corporate management and the way in which corporations do business an essential feature of a business man's education.

In all these matters there is variation between the decisions of the courts in the different states and between the statute laws of the different states, and the finer distinctions are not mastered even by skilful lawyers. The difference between the lawyer and the business man is often only this, that the lawyer knows how to look up the law he wants to know.

But it is entirely possible for an intelligent business man to secure a working knowledge of the broad principles on which all these laws, statutes, and decisions are founded and the business man who has this general knowledge of legal principles and the desire to do the fair and right thing in all his business relations will rarely get into trouble with the law.

The Law Relating to Your Own Line of Business

In addition to a general knowledge of law as it affects business contracts and business operations, the practical business man should have a special knowledge of law as it affects his own particular business. A real estate man should be better versed in the law of real estate than the average lawyer; an insurance man should likewise know more of the law of insurance than the average lawyer; a manufacturer should know more about factory legislation and the laws regulating employment than does the ordinary attorney.

Every man should know in a general way the principle of law and judicial procedure and in addition he should know thoroughly the law that relates to his own special business.

Wherein the Law is Lacking—Procedure Slow

In shaping one's business conduct it is necessary to know wherein our laws are deficient. Perhaps the greatest defect in our system of law is that the attempt to enforce rights by legal procedure or suit is so slow and so costly. It is true that in most cases business difficulties can be settled by judicious negotiation without suit, but there are times when almost every business man is forced to go to law to vindicate his rights. In such case the probabilities are that he will waste a great deal of time, spend a good deal of money, and possibly at the end fail to get the justice which he seeks. The jury system has its merits, but it is hard to get twelve men to agree on anything, and the compromise of opinions that usually results is not always satisfactory.

Complexity

Another defect of our law is that it is too complex and much of it is hard to understand. We have a multitude of state legislatures grinding out new laws and when a business house is doing business all over the United States it is very

difficult to avoid legal entanglements in some of the states. In the time of the Revolution, there was so little interstate commerce that it was not anticipated how great the inconvenience would be of having a multitude of diverse state laws. This defect is being remedied to some considerable extent at the present time by the passage of uniform state laws on various business subjects. The Uniform Negotiable Instruments Law has been adopted by all but a few states. Uniform sales acts have also been adopted in a number of the states. Other systems of uniform law are almost sure to be adopted before many years. Apart from this, there is a general tendency to make state laws more uniform on those subjects in which business is principally interested.

Variety of Sources

Another difficulty with our system of law is the variety of sources from which it comes. An ordinary citizen is subject to the following laws:

- The Constitution of the United States

- The laws of Congress authorized by the Constitution

- The separate state constitutions

- The acts of the separate state legislatures

- The ordinances of the city council or board of aldermen

In addition to these, there are various commissions, boards, and bureaus that have power to make regulations affecting traffic, schools, public health, building, employment, and many other things that from time to time have been added and will be added as our population increases and business develops.

How to Secure a Knowledge of Law

It is possible to take courses of study that will give the business man the knowledge of law he needs. Nearly all business schools have some course in commercial law. In many

cases, however, such a course is very limited and goes only to a few elementary principles. In some of the better evening schools and in the extension courses of the universities, it is possible to go further into this subject.

The other method of acquiring an adequate knowledge of business law is to read books. There are good general texts published on the laws of business. The reader should discriminate between those larger books which are intended to be used only as works of reference, that is, to be at hand for ready consultation in case of any particular trouble and those other books which are intended to give a broad, general knowledge of the principles of law. This difference between books is a marked one and it should be remembered that even the best educated lawyers cannot possibly carry in their heads a knowledge of the manifold details of our modern law. Somebody has said that the principal art of the lawyer is in knowing where to find things. The same may be true of the business man. The man who wishes to have an adequate knowledge of law should read a good text-book on the general principles of law. Then if he has any particular specialty, such as insurance or real estate, he should take up some text-book on that particular subject. It might be well for almost any modern business man to read up specially on the law of corporations. Next, not for reading purposes, but merely for purposes of consultation and reference, he should have certain law books at hand. The extent to which this should be carried depends upon how large his establishment is and how far it is worth while to depend on his individual efforts before consulting a lawyer. The larger encyclopedias of law will be found confusing because of the extent to which they go into detail.

How to Avoid Litigation

As has been said, litigation is to be avoided. It is generally a last resort, and only to be utilized when all means of

settling the difficulty otherwise have been exhausted. To avoid litigation a person should have a good general knowledge of the law. Then he should be very careful to reduce all contracts to writing and to have so far as is possible accurate written records of everything that is done in connection with his business. It should not be necessary to say that every man should deal fairly with his employees and with his customers and with those from whom he purchases. When it is recognized that a man or a firm, or a corporation, tries to deal fairly with all, it will be found that it is generally easy to adjust or compromise any difficulty. Further, if in the course of business it is found that some people are hard to deal with, it will be worth making some sacrifice to keep away from them altogether. A man who has earned the reputation of being "difficult" to deal with is a man whom it is well to avoid.

The Lawyer and the Business Man

It would be highly desirable to go through life and have nothing to do with lawyers or doctors or dentists, but it does not seem possible as things are. Every business man should have a lawyer in whom he has confidence. Business men sometimes employ a lawyer on the principle of fighting the devil with fire, or setting a thief to catch a thief. In the long run it will be more satisfactory and profitable to employ a fair-minded, honorable lawyer with whom your relations can be both businesslike and friendly. He will look to your interests and keep you out of litigation wherever it is possible. There is some difficulty in finding the right lawyer, but it is worth while to go to some trouble and have a counselor who will be both friend and advisor. Many lawyers are excellent business men as well as excellent lawyers and can give valuable advice in many matters that are not strictly legal.

Lawyer's Fees

As a knowledge of physiology does not enable the layman to prescribe remedies for himself in times of sickness, but does teach him the necessity of calling in a physician in certain contingencies, so will some knowledge of business law serve to indicate when the services of a competent lawyer are needed. By realizing before it is too late the function of a lawyer, many times the amount of his fee may be saved. "It should always be remembered that a lawyer should be employed not to conduct litigation but to avoid litigation. Litigation, generally speaking, is like war, a destructive and unsatisfactory expedient."

"In employing an attorney it is best to be entirely frank with him. The contract which the client is about to make is for legal service for which he expects to pay. It is not possible to have an established market price for legal services as is the case with more material commodities. Some lawyers presume on this fact and charge extortionate fees. In the same city the fees of different practitioners may be as far apart as \$100 and \$1,000 for the same services. There may be as much difference in the value of the services secured but this is not always the case. When engaging an attorney, either as permanent counsel or for a single matter of business, it will save trouble and misunderstanding to ask him frankly what he means to charge.

"Some services, such as incorporating a company, drafting a will, and the like, can be estimated positively and a definite price can be given. In other matters, as for the conduct of a case, it is not possible to state definitely in advance what the cost will be. Almost every lawyer has a certain time rate, however, and grades his prices on the amount of time that is required. Usually, time spent in consultation or in the lawyer's office will have one price, and time spent in the trial or the argument of the case will be rated at a much

higher price. If a lawyer states what he charges for his time in preparing a case and what he will charge when on trial, it is possible to get some rough idea of what the proposed litigation is likely to cost.

"A good plan is to arrange for a yearly consultation fee, which gives the privilege of consulting on any matters which come up. Then it should be understood that for actual legal work, negotiating, drawing contracts, or conducting litigation, regular prices are to be charged.

"It is to be borne in mind that in this discussion of lawyers' compensation, the prices paid specialists or famous trial lawyers, or men who work for wealthy clients and wealthy corporations, are not considered. Usually these charge all that the traffic will bear and sometimes more. Their services are luxuries which cannot be afforded by the average business man."*

The Rules of Finance

This discussion of business law concludes our survey of the executive's problems of personal finance. The preceding chapters have outlined the essential features of an enterprise; have shown how, having laid his foundations solidly in thrift, the executive can secure funds ample for the financing of his enterprise; and have presented suggestions on how properly to safeguard one's property and business transactions through a knowledge of the law.

The management of one's affairs in such a manner that the value of his possessions constantly increases, is an avenue to business power in this age of capital whose importance few will question. The discussion of personal finance of the preceding chapters is well ended by the following matter-of-fact rules of financing as presented by William H. Lough, in his "Business Finance."

*Taken by permission from "Business Law," by Conyngton.

Elementary Rules of Financing

- “1. Study and utilize all sources of capital including earning power and credit.
- “2. Do not be afraid to borrow for legitimate business development when you can earn profits and repay the loan when due.
- “5. Do not dissipate capital on side lines and outside investments.
- “4. Systematically accumulate assets, both tangible and intangible.
- “5. Always keep available, sufficient cash and convertible assets to meet emergencies and to seize special opportunities.
- “6. Use income sparingly for living expenses and pleasure, but freely for business maintenance and development.
- “7. Use foresight—which is the cardinal virtue in all financial operations; make budgets to govern all expenditures.

“These are the prudent, indisputable rules for sensible financing,” concludes Mr. Lough. “They have been preached and proved over and over again for many centuries past. The wisdom which these homely rules embody applies just as truly to the business of the Standard Oil Company and the United States Steel Corporation as to the affairs of John Smith. A man who can grasp these principles, hold them continually before his eyes, and apply them intelligently, is bound to handle his finances wisely both in his business and in his private life.”

LAW BOOKS FOR BUSINESS MEN

A business man's library should contain first of all some text-books on business law, written in accurate but non-technical language. It

might be well to add to these some good business text on corporation law of which there are a number published.

In addition, a business man's library should contain any manual that may be printed containing the corporation laws of his own state. It should also contain the state statutes which relate to his own particular business. An insurance man would want the statutes relating to insurance; a manufacturer the factory legislation and all laws relating to employer's liability. A man engaged in railroading or any public service would require the statutes regulating that. A credit manager would require to have copies of all laws relating to the collection of debts in the several states. He would also need a full text on the workings of the bankruptcy laws.

The general statutes of the state may usually be had in one or two large volumes with supplementary small volumes containing each subsequent year's laws. It requires some skill to accurately find what is the law in force on any subject and the letter of the statutes is affected by the decisions of the courts so that a layman is liable to make serious mistakes in looking up statutes.

An encyclopedia of law is likewise not helpful to a layman. He is lost in a multitude of fine distinctions and a maze of apparently conflicting decisions.

At times it may pay a layman to buy a legal text on some special subject, as the income tax, conditional sales, administering an estate, mechanics and material liens, patents and trade-marks, and the like. In all such cases, try to get a work written in non-technical style for the use of business men.

It is always to be borne in mind that the object of legal books is not to supersede the necessity of employing a lawyer but to enable you to know when you do need a lawyer and to lead you to call in a lawyer when needed which is usually to prevent trouble, not to try to cure it when it is too late.

PART VIII

A MAN AMONG MEN

The new management employs not only science but humanity, and by humanity I do not mean merely or chiefly sympathy but rather a larger thing, the recognition that all men, regardless of race, origin or experience, have powers for greater things than have been believed.—IDA M. TARBELL.

Man efficiency is today of far greater importance than the further development of machine efficiency.—JAMES LOGAN, General Manager, United States Envelope Company.

Learn to work with your fellows. It is not enough that you should tolerate them and avoid wronging them. It is not enough that you should mind your own business and be self-supporting. Civilization has been created and is carried on by team-work. Get into the game. Take your part in the great collective struggle to make life more worth while.—PROFESSOR FRANKLIN H. GIDDINGS.

CHAPTER XXIV

TEAM-WORK

If I had not been able to get along with people I would not have been able to get on in this world.—LORD KITCHENER.

Business Today Beyond the One-Man Stage

The business man who renders himself effective in all the phases of personal management hitherto discussed thereby completes successive stages in a conquering offensive. Even so, full victory may yet be denied him. His final test, which must be passed if he is to achieve notable rank in business, can be well set before us through an incident drawn from the early career of the late Mr. Frank Woolworth, the chain store magnate.

It was in 1886, that Mr. Woolworth, having demonstrated in a small way up-state the feasibility of the five-and-ten-cent chain stores, opened a tiny office in New York at 104 Chambers Street, at \$25 a month rent. Here he worked almost day and night, personally answering his correspondence, making leases for the various promising locations he had investigated, buying for all his stores, and doing all his own book-keeping. But these over strenuous efforts soon told upon his health. Although he was a large-framed man of above-average height, his weight at the time he was running the New York office single-handed fell off to 135 pounds, and an attack of typhoid fever with which he was soon stricken rendered him for eight weeks unable to attend to business at all.

"This experience taught me a lesson," said Mr. Woolworth. "Up till then I thought I must attend to everything myself. But now I indulged in the luxury of a bookkeeper and I also, at great effort, broke myself of the conceit that I

could buy goods, display goods, run stores and do everything else more efficiently than any man associated with me. That really marked the beginning of my success and enabled me to expand in a large way. From then on I confined my attention to important matters, to looking ahead, thinking up new plans, giving instructions to other people, placing responsibilities on them, and contenting myself with general supervision of the conduct of the business. So many thousands of merchants never get over the conceit that they must do everything themselves, with the result that they struggle along in one little store.

"A business is like a snowball. One man can easily push it along for a while, but the snowball becomes so large if pushed ahead that help must be obtained to roll it—and if you don't keep rolling it, it will soon melt."

Reaching the Consumer

The field in which Mr. Woolworth operated was merchandising; it is pertinent to observe to what extent his experience was typical. Let us examine the various channels of distribution by means of which commodities are transferred from producer to consumer, our aim being to note the present tendencies in merchandising with respect to the one-man business. (See Figure 33.)

The usual channel of distribution is designated by (1) in the diagram. The manufacturer turns over his products to a limited number of selling agencies, who in turn pass them along to a larger number of jobbers, who dispose of the merchandise in turn to a still larger number of retailers, who supply the ultimate consumers.

The feature here is the growth of the large-scale department store. The old-fashioned general store of the country crossroads supplied nearly every line of merchandise which the limited wants of its community demanded. The increased

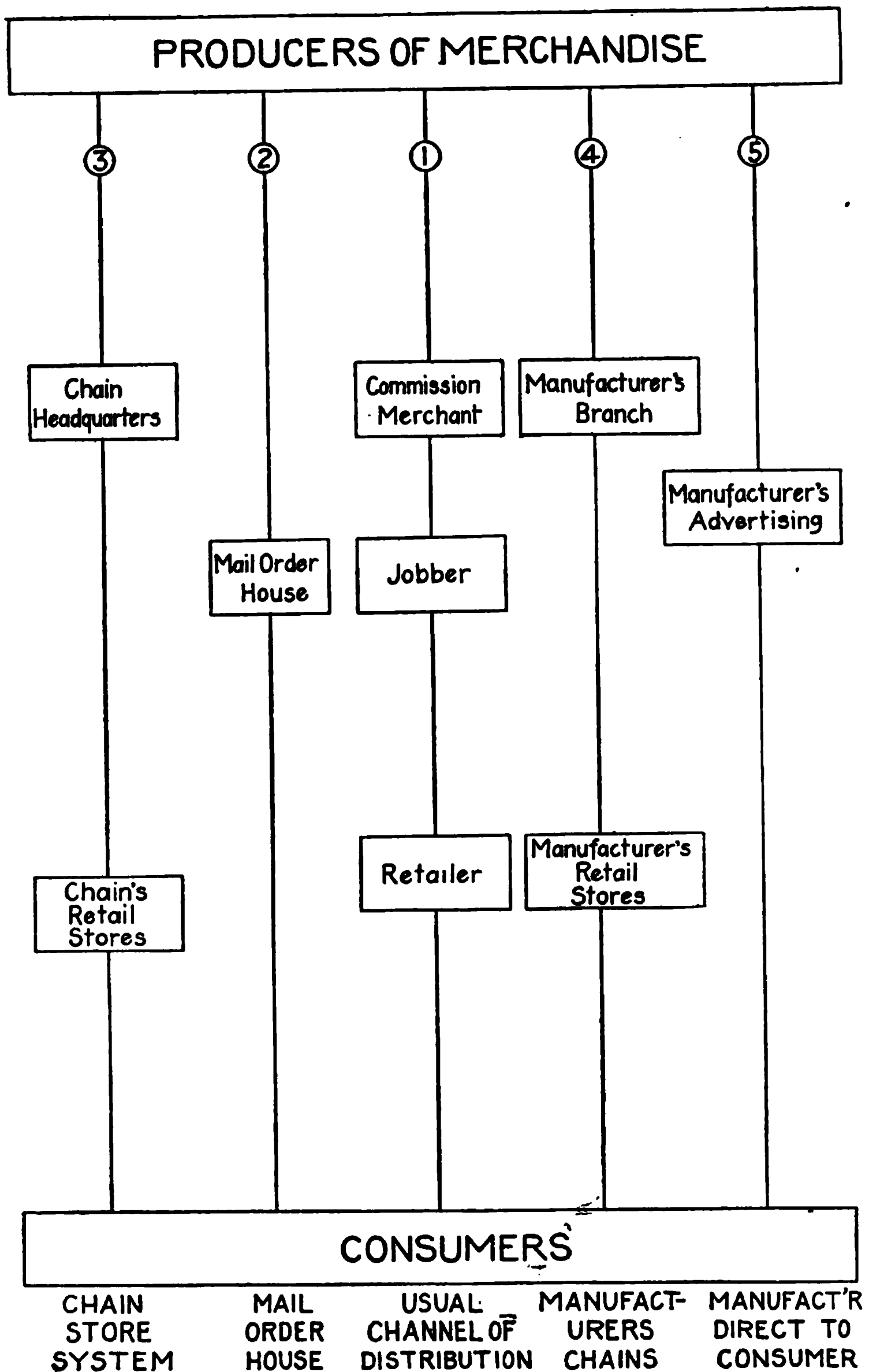


Figure 33. The Channels of Distribution

demands of large town and city consumers led to two consequences: the development of the specialty store, retailers devoting themselves to shoes, hats, silks, books, and the like; and the rise into prominence of the department store, a mammoth institution in which scores of specialty stores are combined under one roof. It is not unusual for 200,000 customers to enter one of these stores during a single day, nor for its purchases of a particular commodity to total \$100,000. Its delivery wagons and cars, drawn up one behind the other, would surround an entire city square and its employees may exceed 6,000.

The relative status of these stores is shown in a report on the volume of business of leading stores in the one hundred largest American cities, prepared by the Curtis Commercial Research Division. This study comprised a total of \$943,451,000 worth of merchandise, which was found distributed as follows:

100 largest stores,	one in each city	\$260,740,000	or 28%
100 second largest stores,	" " " "	166,100,000	" 18%
100 third " "	" " " "	130,561,000	" 14%
100 fourth " "	" " " "	97,880,000	" 10%
100 fifth " "	" " " "	69,735,000	" 7%
Other large stores		218,435,000	" 23%

The tendency here shown is equally noticeable in the other channels of distribution. The chain stores (No. 3 in the foregoing diagram) represented by retail corporations such as the United Cigar Company, the F. W. Woolworth Company, and the Great Atlantic & Pacific Tea Company; and manufacturers' chains (No. 4) represented by organizations such as the W. L. Douglas Shoe Company, the Regal Shoe Company, and the Knox Hat Company have come to be a prominent factor in merchandising, as the following statistics gathered in 1914 by *Printers' Ink* will demonstrate:

Field	Number of Chains	Their Number of Stores
Groceries	500	8,000
Tobacco	250	2,500
News-stands	200	2,500
5c and 10c.....	180	2,000
Oil, gasoline, etc.....	5	2,000
Drugs	200	1,400
Restaurants	100	1,400
Pianos and musical instruments.....	125	1,000
Sewing machines	2	1,000
Boots and shoes.....	50	700
Automobile accessories.....	50	650
Clothing	50	600
All others	1,076	6,799
Total.....	2,788	30,549

While space does not permit the discussion of the other channels of distribution designated on the foregoing diagram, the present tendencies in merchandising are indicated pretty closely in this tabulation of what has taken place during eleven years in Greater New York's retail grocery trade:

	1903	1914	Per Cent Increase
All stores	8,750	13,513	54
Chain stores	215	985	360

Large-Scale Production

The tendency toward centralization of ownership and management has been even more completely developed in production. An establishment whose annual product totals \$1,000,000 or over certainly has gone far beyond the one-man stage; according to the returns of the Thirteenth Census the number of such establishments, 1,900 in 1904, had increased to 3,060 in 1909. While these establishments even in the latter year were relatively insignificant in number, comprising only 1.1 per cent of the whole, their product in 1904 represented 38 per cent of the total product manufactured and in 1909 an increase to 43.8 per cent.

At the time the matter of price fixing was before Congress in September, 1917, it was learned that 60 per cent of the United States annual production of 40,000,000 tons of pig-iron was produced by twelve companies; that 72 per cent of the 43,000,000 tons of steel ingots produced annually were made by thirteen companies, although 200 companies were operating in this field; that 62 per cent of the steel bars were produced by eight companies; 89 per cent of the shapes by five companies; and 66 per cent of the plates by seven companies.

Advantages of the Big Business

This movement toward consolidation is similarly to be observed bringing about great changes in transportation, publishing, mining, contracting, real estate, and banking. In fact, while certain lines of business are so well adapted to a one-man stage that they may be expected to persist, the tendency in general is toward the large-scale enterprise.

The reason for this general tendency is clear. The large-scale enterprise, compared point by point with the small, possesses distinct advantages with respect to the four operations of business, viz., production, sales, accounts, and finance. The more important of these advantages can thus be summarized:

1. *Strategic Location of its Units.* The chain store has developed this advantage to a high degree of perfection; but other concerns in the location of their subsidiary plants, branches, offices, or agencies can also place them strategically. This permits the adjustment of each unit to its particular field and it often secures a saving in cross freights.

2. *Increased Use of Machinery.* The volume of operations undertaken by the large-scale enterprise is so large that when classified certain of these operations will be reduced to routine and hence subject to machine operation. Sealing

and stamping machines, automatic gear cutting machines, and automatic box filling devices illustrate very nicely this advantage.

3. *Utilization of By-Products.* The stockyards, when they have centralized on an enormous scale the slaughtering of livestock, are able to develop various subsidiary uses for products which the individual butcher could only waste. The coke industry, the salvage carried on by department stores, or, closely akin, the stoppage of small wastes indicates how this advantage can be utilized in practically any business.

4. *Wider Latitude in Choosing the Marketing Plan.* The large-scale enterprise has a certain freedom of choice, commonly denied the small enterprise, in choosing which of the various channels of distribution it shall employ. Were national advertising decided upon, for instance, the slogan of "keeping everlastingly at it brings success" is one which a large enterprise runs less risk of violating.

5. *Regularization of Production and of Prices.* The cycles of business, which have been described in a preceding chapter, can be studied and dealt with more effectively, as a rule, by the large-scale enterprise. Its policy thus tends to regularize production and prices.

6. *A Superior Management.* The large-scale enterprise usually has a wide variety of talent in its management, its research staff can perfect new devices, and its executives are more or less continuously exchanging ideas and comparative data. Such superior management purchases more effectively, supervises credit risks more accurately, and in general easily secures for its company the various other advantages specified.

The Organization Point of View

While no enterprise can expect to utilize all these advantages to the fullest, the possibility of deriving substantial

profits from certain of them accounts in the main for the growth of large-scale business. The general tendency toward business establishments of large size was greatly accelerated by war demands. Winning the war meant that we had to pool the resources of the entire nation, and it is now evident that maintaining a post-war supremacy is to be a matter of economic centralization on a scale vaster than heretofore attempted.

The man who surveys conditions with a view to discovering certain principles which will guide him toward success today and throughout the stirring period into which business is swinging, must think of his own part in terms of organization. (See Figure 34.) Otherwise, however good his intentions and strenuous his efforts, as an individualist, a man who thinks only of self when affairs of moment are under way, will putter and "mess" things far more than he helps. Since business in every line of importance has passed, never to return, the one-man stage, this is necessarily so; and he who would play a notable part hereafter must accept fully the organizer's point of view and work with other men.

The Business of Being an Executive

In saying the manager should accept the organization point of view and work with other men, we have a general principle of great value. Nevertheless it possibly appears indefinite and hence, in order to be more fully useful ought to be re-stated in somewhat different terms. What does it really mean? how does it operate in practice? Here we have questions for whose full answer volumes would be required, but whose "high spots" at least we shall venture to set forth in summarized form even at the risk of over-simplification. In putting into practical operation the organization point of view, the executive, it appears, proceeds according to the summary on pages 426 and 427.

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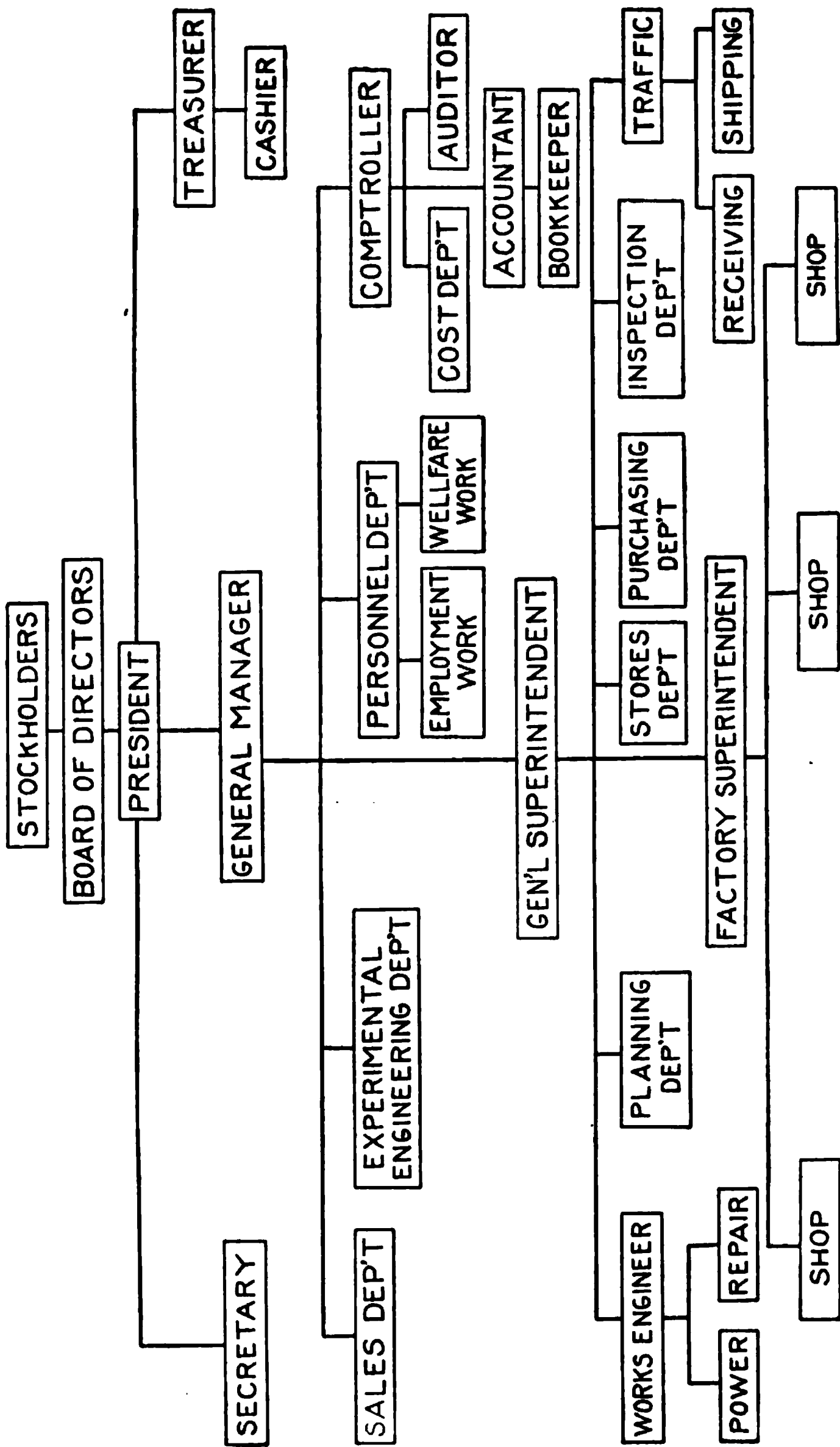


Figure 34. Organization of a Factory

Every business which has passed the one-man stage has an organization, which however it may differ as to details, can be charted in a form broadly similar to this. When a man thinks of his own work as fitted into such a general scheme he may be said to possess an organization point of view.

I. ORGANIZES

What He Does

1. Locates the real opportunities for profits
2. Surrounds himself with able men
3. Assigns each man a job, with authority to proceed
4. Affords his men constructive direction

What He Does Not Do

1. Does not wander off on unproductive side lines
2. Is not always trying to be it.
3. Avoids confusion over what is to be done and who is to do it
4. Will not putter over details and hold things up through non-decision.

II. PLANS

What He Does

1. Exercises foresight, provides in advance for difficulties
2. Draws up careful plans of procedure
3. Does every day some real constructive thinking
4. Pushes his work

What He Does Not Do

1. Will not be tripped up by "first one thing and then another"
2. Is not always busy settling things just as they come
3. Not too harassed and worried to concentrate
4. Does not let the work push him

III. SUPPLIES INCENTIVES

What He Does

1. Appreciates generously the efforts of others
2. Develops and trains men constantly
3. Keeps faith with his organization
4. Makes himself regarded as a friend and co-worker

What He Does Not Do

1. Does not push self into limelight by belittling his co-workers
2. Is not always threatening discharge and telling of the incompetence of subordinates
3. Careful not to break spirit of men by arbitrarily taking things out of their hands
4. Does not dwarf and antagonize men

IV. SUPERVISES

What He Does

1. Bases his judgment upon vital business data
2. Uses summaries and graphs of these data
3. Knows good results because he judges them by standards
4. Has close grip on essentials of position

What He Does Not Do

1. Does not plunge in the dark, nor tolerate loose methods
2. Will not wade through masses of detail when unnecessary
3. Avoids mere rule-of-thumb in judging results
4. Has less suspicions because he has more facts

RESULTS ATTAINED

1. Co-ordination, speed and control
2. Superior output with respect to quantity, quality, and unit cost
3. The maximum utilization of opportunity and of men, and the minimum wastage

Rules of the Business Game

The above items, while they do not express by any means *all* the things an executive does and does not do, set forth with fair adequacy the essentials of the manager's job.

In order that these four processes of organization, planning, the supplying of incentives, and supervision, may function properly, however, so that there may be additional security that managers and men do not work at cross purposes, there is need of those carefully worked out rules of the business game which, in contrast to rule-of-thumb, we may term scientific management.

The story of the very early steps in scientific management as worked out in the yards of the Bethlehem Steel Company, where from 400 to 600 shovelers were under the charge of Frederick W. Taylor, has become a classic. The belief current among managers at the time was that to shovel materials a man must simply shovel, and this these men were doing—sixteen tons daily. Taylor believed that without longer hours

or more intense effort on the part of the men, output could be materially increased; and accordingly he put into operation his now well-known four principles of scientific management.

Principles of Scientific Management

1. The Development of a Science for Each Element of a Man's Work, Which Replaces the Old Rule-of-Thumb Method.

The proper size of shovel as the result of a considerable number of experiments was found to be that which held twenty-one pounds; consequently eight or ten different kinds of shovels were provided, each designed to hold twenty-one pounds, the larger shovel for materials of light weight and the smaller for the heavy. The method of inserting the shovel into the material, the speed at which the shoveling should be done, the proportion of time a man should be under load and at rest, were among the other elements studied.

2. The Scientific Selection of Workmen. Not all the laborers were found properly equipped to be shovelers, hence further study was made in order to determine the type best adapted for the work at hand. Those not meeting the requirements were transferred elsewhere, leaving as shovelers in the end a gang of laborers who were picked men.

3. The Bringing Together of the Selected Workmen and the Science. The men were trained to shovel by teachers provided for that purpose, and as a further incentive a bonus system of wages was introduced.

4. The Almost Equal Division of Work Between the Management and the Men. Whereas under rule-of-thumb a man set about his work with little co-operation from the management, under the plan here put into operation an office force was installed which planned the work at least a day in advance.

The result of this elaborate system—tool room, office, telephones, additional tools, time-study men, clerks, foremen, and

labor superintendent—was that output increased from sixteen tons to fifty-nine, wages from \$1.15 to \$1.88, and ton cost to the company, all expenses included, was reduced from 7 1/5 cents to 3 1/3 cents. These results were the fruits of standardization.

Standardization produces a rule book for the business game, and the executive ought not to cease until systematic rules are in force throughout the entire organization. He is interested alike in:

Standards for the factory.

Quotas for the sales department.

Standards for the office and the accounting departments.

Budgets for the financial department.

When these have been developed and put into operation, the organization will run smoothly because subject to rule.

Charting the Manager's Responsibilities

While a discussion of these various standards would take us too far afield, we are nevertheless concerned that the manager guide himself correctly through these rules of the business game. In his attempt to do so the executive will seek most of all to know clearly what he is responsible for; what is his job.

"The manager should be a hair-spring—not a main-spring," is the way W. A. Field, General Superintendent of the South Works, Illinois Steel Company, conceives his position. "He should not have to drive his organization, but merely hold it back, regulate it, keep it in adjustment."

"Doing what no one else can do," is the way J. B. Kendall, head of a real estate concern, puts it. He blocks out the big plan, finances it, and then turns it over to his lieutenants to be realized.

"My job," says J. R. Richardson, General Manager of the Hotpoint Electric Heating Company, "is to keep the organization steamed up—and to hire the right men, which is coming to be more and more important."

Very similar is the conception of his position held by President Patterson of the National Cash Register Company. Years since, an executive overworked to the point of collapse, he was forced to give up active duties for the time being and sought recuperation by a trip to Europe. It was feared he would never be able to take up the reins of management again. While on this trip, however, Mr. Patterson in pondering over his difficulties, hit upon a simple diagram which he believed expressed them fully. (See Figure 35a).

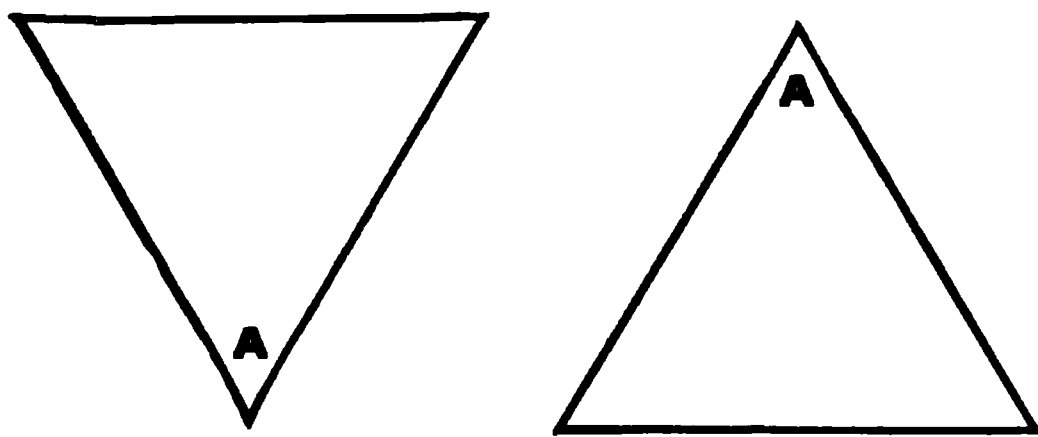


Figure 35 (a) and (b). The Executive's Position

The management of his factory had proved to be a crushing burden because he himself, as A in the first figure, was supporting the rest of the organization. The correct position, he decided, could be secured only by turning the pyramid about, as in the second figure. (See Figure 35b.) The organization, because of his wrong location with reference to its other members, had crushed him. President Patterson returned to Dayton conceiving his position in a new light, and the later career both of the National Cash Register Company and himself personally confirms in a most convincing way the correctness of his analysis.

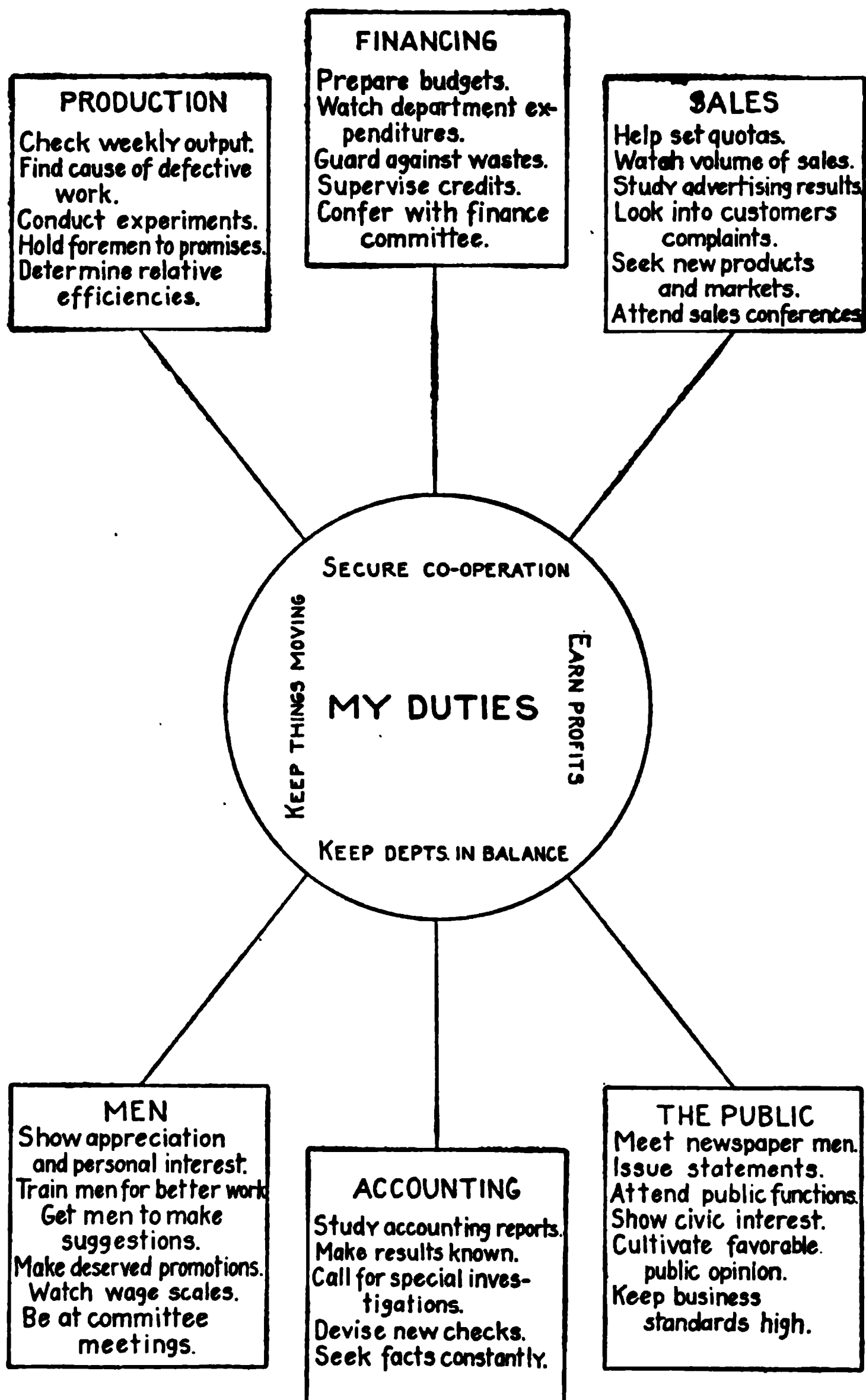


Figure 36. "My Duties" Analyzed

The analysis of his position is essential if the executive is to co-operate effectively. The outline of such an analysis is here shown, the presidency of a moderate-sized corporation being the position assumed.

Outlines of Specific Duties

These general conceptions should next be followed by analyses which outline the duties of the position somewhat specifically. Figure 36 illustrates an analysis such as the president of a small corporation might make, although with the responsibilities of a given position clearly before him and his pencil in hand, an executive might well go into more specific detail than is here indicated.

Since an organization comes sooner or later to reflect its manager, this charting of his responsibilities represents an essential element in team-work.

EXERCISES

Careful Adjustment of Function

As a business expands questions regarding differentiation of function and distribution of responsibility among its officials are bound to multiply. The problems involved here have already been considered in part in the chapter on the Private Secretary, but they present themselves now in much more complex form. Here it is not a matter of personal relations between a single executive and one or two immediate subordinates. It concerns the relations among many officials whose work, all essential and in large measure independent, interlaces in various points. It is most important that all should have clearly in mind where one man's duty leaves off and another's begins. Within the organization there is no place for a No Man's Land; neither can there be overlapping of lines. That business progresses best in the rapidly shifting conditions of today which is able not merely to mobilize its full power of men and resources, but is both able and ready to readjust its "line-up" from time to time on the basis of scientific analysis.

A Test of Executive Capacity

The readjustment and perfecting of the business "line-up" can proceed more expeditiously if the executive capacity of the men involved receives a more definite appraisal. For this purpose the following test has been devised. In making the appraisal, after each question place in the column at the right the proper letter as per the following rating scale;

A—My methods in this respect are	Excellent
B— “ “ “ “ “ “	Good
C— “ “ “ “ “ “	Fair
D— “ “ “ “ “ “	Poor

Question	Rating
ORGANIZATION	
1. Have I located the real opportunities afforded by my position? (Am I off on side lines, looking for the surface errors of subordinates?)	
2. In turning these opportunities into realities did I surround myself with able men? (Do I surround myself with a lot of "cheap" second raters, so that I can have a better chance to be the whole thing myself?)	
3. Has each of these men his job and the authority to proceed? (Does confusion exist, with repeated calls coming in for instructions?)	
4. Are my subordinates securing from me constructive directions? (Do they find me a putterer over details, a laggard whose non-decisions holds them up?)	
PLANNING	
5. Are difficulties foreseen and their effects provided for in advance? (Does "First one thing and then another" continually trip me up?)	
6. When new projects are decided upon, do I draw up careful outlines of procedure? (Am I busy settling things piece meal as they come?)	
7. Am I doing every day some real constructive thinking? (Am I too harassed and worried to concentrate?)	
8. Do I push the work? (Does the work push me?)	
INCENTIVES	
9. Do I appreciate generously the results obtained by others? (Do I belittle their efforts and push myself into the limelight?)	
10. Am I developing and training men constantly? (Am I always threatening discharge and telling how incompetent my co-workers are?)	
11. Can I keep faith with my organization, permitting each man his due freedom and reasonable leeway for errors? (Do I break the spirit of my men by arbitrarily taking things out of their hands?)	
12. Am I regarded as a friend and co-worker? (Have I dwarfed and antagonized men, and instead of being a dispenser of the fair deal—been a dispenser of "bunk"?)	
SUPERVISION	
13. Is my judgment based upon the sound data which vitally affects my business? (Such sound data lacking, am I left in the dark?)	
14. Have these sound data been properly summarized and reduced to graphic form for my use? (Does the slow wading through much irrelevant matter to get what I want cause me more bother than help?)	
15. Do I recognize excellent results when such are produced? (Am I a rule-of-thumb man without carefully worked out standards?)	
16. Have I a close grip on the essentials of my position? (Am I more filled with suspicions than facts?)	

Test Chart 20. Sixteen Tests of Executive Capacity

CHAPTER XXV

CO-OPERATION

You will never have the right team-work unless each man is looking after all of his own job—and all the others know that he is.—JOHN N. WILLYS, President, Willys-Overland Company.

The Placing of First Things First

The rules of the business game, in their more carefully wrought out state represented by the principles of scientific management, require the addition of a second element before the organization attains its desired smoothness of operation. This element is co-operation.

It is true that in this wonderful machine age the emphasis within large-scale establishments appears to be placed upon mechanical elements. As a rule much is heard of high-speed steel, multiple-spindle drills, automatic lathes, electric resistance welding, internal transportation systems, plant layouts, control boards, and similar items which comprise the mechanics of industry, but not a great deal is said concerning the equally important but more elusive elements encountered when men in their efforts are bound together. Yet it is significant to note that when a really big executive surveys a really big task—as did Mr. Stettinius in the following typical instance—his emphasis is somewhat differently placed.

In the year 1915, the firm of J. P. Morgan and Company was appointed commercial agent for the British Government. Edward R. Stettinius was taken from his position as president of the Diamond Match Company and appointed the company's representative. The Morgan offices were overrun not with hundreds, but thousands of people anxious to sell

all kinds of commodities. There were manufacturers, both responsible and irresponsible, of clothing, machinery, hardware, chemicals, surgical instruments, automobiles, and what not; there were merchants, commission agents, horse dealers, inventors, and war brokers by the score. Everything was for the time being in a state of chaos.

The Best Index for Efficiency

"A large portion of the stuff the British wanted here during the first twelve months of the war," says Mr. Stettinius, "had never been produced in the United States before, outside of our own arsenals, except to a very limited extent. Our initial problem was how to start up the wholesale manufacture of munitions. Existing plants were totally inadequate; but how and where should we begin to develop others? To what extent could concerns making other things transform their machinery and equipment into plants for the output of munitions? Would steel plants be the most suitable, or automobile factories, or locomotive works, or car building works—or what?

"We were embarking on an uncharted sea. We had no compass or precedents to guide us. It was an absolutely new industrial problem. It not only involved many millions of dollars, but possibly the lives of thousands of men; serious mistakes would occasion delays and dangers of far more moment than the heavy money loss. Some plan, some principle, some policy, had to be adopted, and adopted quickly.

"After careful study, we decided that in placing war contracts we would have to be guided less by the nature of any concern's products than by the character of the men at its head. We figured that the layout of any plant, the design of the buildings or the kind of machinery in it, was of minor importance to the degree of success that had been exhibited in running it. In other words, brick and mortar, machines and

tools, were not what we went by, but the brain that administered these things. We proceeded on the theory, which we had no occasion subsequently to abandon, that 97½ per cent of the efficiency of the plants lies in the men, and only 2½ per cent in the bricks, mortar, and machinery that make up the plant. Given the right stamp of men, we believed they would get there."

The Organization's First Essential

This conclusion reached by Mr. Stettinius was not merely a happy idea which worked out well in connection with war orders but a fact of basic importance in the management of any enterprise. The organization's chief essential is men.

"Men make an organization, not machinery or plants," says John D. Rockefeller. "The right kind of business men will build up an organization capable of producing a large volume of a good product at a low price—the three things essential to success." The secret of the Standard Oil Company's tremendous growth, Mr. Rockefeller thus explains: "We gathered together around one table the ablest brains we could find in the country and we hid nothing from one another. We each gave the business our undivided attention and loyalty."

In order to secure the effective co-operation mentioned by Mr. Rockefeller the work of the company as a whole has to be subdivided, ranked in relative importance, and delegated to the various employees. In so doing it is intended not to suppress or lessen but to utilize more fully the total net power of each individual. The careful working out of duties and responsibilities, indeed, keeps one workman from standing in another's way or enables him to reinforce another in need of help; in either case the effectiveness of the whole group is increased.

Although an effective army is impossible without elaborate

arrangement and discipline the results nevertheless depend in large measure upon the feelings and attitudes of the individual men toward each other. •

“The most important waste in business is not of materials but of time,” points out James Logan of the United States Envelope Company. “Now to make the most effective reductions in the wastage of time, you must have co-operation from your employees. In other words, the knack of working with men is vital.”

It ain't the guns nor armament,
Nor funds that they can pay,
But the close co-operation that
Makes them win the day.
It ain't the individual nor the
Army as a whole,
But the everlastin' team-work
Of every bloomin' soul.

Surety of Performance

In order to render effective in a business organization the team-work specified so stirringly by Kipling, what qualities are essential to the degree that they may well be termed the co-operative virtues? The first of these concerns the surety of performance.

The charting of a person's responsibilities, described in the preceding chapter, can be regarded only as preliminary to their discharge. In fact, the charting itself simply renders definite in the minds of both the person concerned and his co-workers certain expectations, which, like expectations in general, are of little value unless followed by actual performance. Can he be depended upon to do this?

The accomplishment of the expected task doubtless could be rendered more certain in various ways, such as the use of written messages, through preliminary investigations, constant follow-up, searching inspections, and severe penalties, plus numerous legal safeguards. But so cumbersome are such

methods and so intense the desire for speed and ease of operation that in most cases the business world is convinced it is security purchased at an excessive price and a more efficient substitute is sought.

What the Name "G. Washington" Meant

The problem faced here is well illustrated by the experience of customs officers in the West Indies nearly two hundred years ago, who had to inspect barrels of flour sent down from the colony of Virginia. As barrel after barrel was rolled from the ships into the warehouses these inspectors laboriously unfastened the casks to make their test. It was discovered after a time, however, that barrels upon which appeared the name "G. Washington" invariably contained the grade of flour specified, so with much relief and a considerable expedition of business, they rolled such barrels along without examination; the name sufficed.

The guarantee which proved most effective in this inspection of flour, viz., dependence upon the individual, the business world now utilizes constantly, and it seems that the greater the need for speed and accuracy, the more complete is its utilization. Business as a whole is done on the basis of five per cent cash and ninety-five per cent credit. In Wall Street the really big operations are almost wholly a matter of credit. Syndicate agreements involving at times many millions are put through with no other formalities or safeguards than telephone conversations and a few brief notes of confirmation exchanged among the participants. On the floor of the stock exchange a member holds up certain fingers, a fellow member nods his head, and this for the time being is considered ample to bind the transaction although it may have involved thousands of dollars and a cancellation of its conditions within an hour or two possibly would have proved decidedly profitable for one of the parties. In the same spirit,

telephone orders to buy or sell securities are considered as binding as a formal contract.

The interrelation between men within organizations and between organizations links their responsibilities and fortunes so inextricably that as a business virtue dependability possesses a decided asset value. Those who propose to deal with a man necessarily are concerned about his dependableness and their questions which always more or less conspicuously come to the forefront are: Can he hold himself stable against selfishness, cupidity and greed, and make good on his word? Has he the stamina and self-control needed to satisfy this modern business requirement, best stated in the phrase 'ages-old,—“Whatsoever ye would that men should do to you, do ye even so to them?”

He who can by his business conduct answer these questions affirmatively possesses character, the premier co-operative virtue.

Winning the Good-Will of Others

Character will gain men's confidence but not necessarily their affection and good-will. Yet the smile of William C. Durant, judged solely by its earning power in the financier's career, doubtless would deserve a capitalization of \$50,000, and the winning ways of Charles M. Schwab have certainly had as much to do with the success of the Bethlehem Steel Corporation as four or five extra millions of capital, or a hundred laborers. Character, in fact, needs as its supplement amiability, for while in former chapters the executive has been referred to as at his desk, the analysis of his responsibilities shows that he must also be a man among men.

While there is no royal road to the good-will of others unless it be the very general dictum of *deserving it*, certain qualities do appear among those executives whose hold upon their employees and associates is both affectionate and en-

during. Open-mindedness is one of these qualities. The closed mind, the attitude of self-sufficiency and business stagnation, naturally repels forward-looking men; but the executive whose mind is always open for advice and suggestions supplies his co-workers with that vague yet subtle incentive which at bottom constitutes for them self-realization, but which in its practical outworking leads to their personal interest in the business and cordial feelings toward the person who directs their common enterprise.

Enabling Men to Make Good

"Every business needs to develop the personality of its men," says George H. Barbour, president of the Michigan Stone Company, "for that means individualism, originality, growth, and progress."

In its practical aspects, the view so well stated here by Mr. Barbour involves only very simple methods, though to a narrow-minded man they might seem most difficult. There needs to be first of all hearty, constant change of ideas, a pooling of intelligence and experiences.

"Once a week, every Saturday," says the captain of industry whose organization at South Bethlehem is justly famed for its *esprit de corps*, "I have the heads of the various departments, upward of forty, take luncheon with me. Not a word of business is permitted during the meal; but after everything is cleared away we discuss matters in hand and exchange opinions. Every one of the gentlemen present is at liberty to advise, to suggest, and to air his ideas. The value of these meetings is very great. On Monday the gentlemen who have lunched with me call their head men together and have similar meetings."

The man who wrote those words, Charles M. Schwab, is the man who was selected finally to put through Uncle Sam's tremendous ship-building program, after a number of smaller

men successively had proved unequal to it. One of the duties of every executive thus is to take his part as a useful member of the "parliament" in which he sits, not to be merely a lay-figure and not to make himself a nuisance by over-aggressiveness.

The view that employees are assets, as a matter of sound business policy deserving the attention which any asset of similar value should receive, will eventually lead managers to regard themselves very properly as teachers. The employees who intrust themselves to a firm, who turn over cheerfully to its keeping their time, efforts, business reputation, and possibilities for future growth, can be trained and encouraged in every feasible way to "make good" only if this firm meets the moral responsibility it has incurred and measures up to its full opportunity as a going concern.

Tact, a Quality Which Makes for Effectiveness

This willingness to look at things from the other's viewpoint constitutes the essence of tact, another of the qualities which make for effectiveness. The tactless man rasps our temper by his blundering and inconsiderate ways of dealing, arouses our opposition and in the end wastes much of his surplus energy in beating against the walls which offended persons have raised against him. The methods of diplomacy are not such as these. The tactful man, in other words the business diplomat, remembers a lady's birthday but forgets her age; serves as a mirror in which his co-workers can, occasionally at least, catch glimpses of their best selves; and melts away opposition by his humor and good nature.

Unfortunately, owing to a confusion regarding their true nature, that which passes for tact often represents deceit unadulterated and that which is called diplomacy is often merely lying refined a bit. In reality such slyness and trickery are base counterfeits, coined by those anxious to secure the re-

wards of tact and diplomacy without cultivating the open-mindedness, the ready sympathy and consideration for others upon which these two qualities are in fact based. Needless to say, co-operation represents a give-and-take in which counterfeit coins do not ring true.

It is in part due to the exploitation at the hands of "uplifters," propagandists, and small politicians of these co-operative virtues that business men, accustomed to think in matter-of-fact terms and to express their sympathies not in empty phrases but in tangible ways, are usually reticent to express the very great consideration which they as a class feel toward their fellows. Although their exteriors present a somewhat harsh appearance—which in certain notable cases most accurately indicates the much shrivelled soul underneath—the really big executives as a rule do possess the human touch, with sentiments of kindness, ready sympathy, and brotherly love.

Signs Which Indicate Co-Operation

The co-operative qualities which we have been considering are inner virtues, imbedded deep in the personality. How is their presence detected by co-workers and credit given for their possession? By external signs. These indicate a person's record as co-operator, and his present associates and proposed associates read most of them in a matter-of-fact way.

The question is often raised, Do clothes make the man? No; but they constitute one of these external signs. "A man's clothes go a long way to help the people he meets classify him," the well-known executive, A. H. Revell, very correctly observes. "This classification may be unconscious. At first glance you may not figure out that because a man wears a black frock coat, straw hat and a checkered shirt, he does not know his business, but the chances are he has not learned to adjust himself to his environment. And a man

who can not adjust himself is seldom a good business man.

"A man who enters the office with a sack coat, a silk hat on his head and a cigar in his mouth, is not a normal man. He hasn't observed the fundamentals of dress; the chances are that he has not associated with men who have. A man is known by the company he keeps, and his clothes reflect the tastes of his friends. And a man who has not associated in business with men of the caliber of the man to whom he is offering a proposition cannot be assumed to be able to place himself in the owner's position and see the situation from his viewpoint.

"A business man is inclined to listen to someone who appears to be prosperous. It gives him confidence in his abilities. But prosperity is more often shown in neatness than in style. A big diamond in a soiled shirt doesn't always prove that it is an appreciation of the esthetic that makes a man forgetful of the dandruff on his coat or the mud on his shoes.

"When one man out of ten estimates a man's character by his clothes, it is just as well to put up a good appearance. Appearances are deceitful, but the man who makes them count for him instead of against him is the man who can show the bright side of a business proposition."

These observations made by Mr. Revell are filled with sound sense.

Suitable clothes, a well-groomed appearance, ease in conversation and in correspondence, the ability to preside with dignity over conferences or public meetings, and the possession of good manners are, it is true, merely externals, yet these things are not arbitrary requirements fashioned to cramp the freedom of dealing man with man but have developed into a social code because they do facilitate co-operation. The man who conforms to them works among other men with less friction.

The Iron Grip Surrendered?

It is not easy in these days when business has so completely passed the one-man stage to over-emphasize the importance of co-operation. Its value steadily rises. In the small business the proprietor is always face to face with his helpers; in the large-scale establishment the chief owner and officials, so far removed from the rank and file that the old-time personal touch is lost, are called upon to reinstate this old-time personal touch by the utilization of methods not dreamed of in the management of yesterday. With these improved methods all the executives of the large organizations, from the chairman of the board of directors down, can stress the personal element and proceed to humanize the business. Activity, versatility, personality will be made to flourish, in many respects, even more vigorously than in the small business because it has larger human resources to draw upon and more varied opportunities to present. Co-operation in such cases becomes very real.

Is this to mean a lack of discipline, a sort of Bolshevistic ideal at work in American business? The men who forge ahead possess almost without exception a certain persistent driving force. They are the sort who know what they want and push toward it until results are attained. In consequence, for the sake of a very fine but theoretical co-operation, shall the executive never oppose but, reducing himself to a tactful nonentity, surrender to the whim of subordinates his iron grip? It were co-operation secured at unreasonable price.

The executive is an executive only because organization and order follow in his wake, and organization and order are necessary if effective results are to accrue. It is a matter of expediency for all concerned. Under the stress of competition subordinates prating over-much of their "rights" and demanding soft, easy conditions, at the end of the month would find their do-as-you-please attitude producing no pay checks. This fact is more generally recognized than one might at first

suppose and the experiences of the Great War have trained a breed of men who will recognize it still more.

The Enterprise Greater Than Self

At the most critical day of the great German drive of March, 1918, the Germans had made a hole between the English and French armies and were pouring through the gap. If they were not stopped it meant the out-flanking of the entire front and the risk of capture of thousands of men. But the emergency found a true executive on the spot, General Carey, a British officer who had already distinguished himself in the war. He promptly overstepped the regulations of war. He collected, wherever he could find them, soldiers and civilians, engineers and ditch diggers, men from the headquarters staff, and cooks, got them into line, gave them guns and told them to stop the enemy. Carey's extemporized army held up the German advance for two days. It was impossible, of course, but they did it! When they got through Carey received an official reprimand for taking non-combatants into the fight and the private, hearty thanks of the government and of civilization.

The men who rallied at Carey's command and fought very nearly to the death realized that a big enterprise was under way and that each had his essential part to perform. In the same spirit one accounts for the devotion of that spirited band which rallied round Pizarro in Peru, Cortez in Mexico, and Washington at Valley Forge, or of those industrial loyalists who remained true to Marshall Field at Chicago, Carnegie at Homestead, and Schwab at Bethlehem? Strenuous effort is entirely compatible with intense loyalty, provided the fruits of co-operative effort are shared fairly. When each associate recognizes that his effort combined with that of many others secures more for himself than were it exerted individually, all become enthusiastic co-workers in the common enterprise. The

executive himself, in fact, constitutes only one associate in the enterprise to which he seeks the allegiance of others.

The solution of the problem involved in effective co-operation thus is simple in its statement but far-reaching in its consequences: In order to co-operate without at the same time surrendering his authority the executive need only identify himself with some enterprise, larger than self and masterful in its appeal, to which he surrenders his soul as it stirs his ambitions to the depths.

EXERCISES

Playing the Game

The throwing of one's whole energies into an enterprise greater than self is often termed by business men "playing the game." Needless to say, such playing of the game stands in high favor among really big executives.

Walter Cottingham, of the Sherwin-Williams Paint Company, says: "How shall an executive tap the spring of inspiration buried within him by which he may enthuse himself and infect others? Let me emphasize that never, so long as he is working for the love of gain alone, will he find the spring. Such an aim will not bring the highest success—even in money. He must play the game for the sake of the game—there must be the desire and joy of doing these things, the spirit and willingness to put in his utmost strength because he enjoys his work—because he wants to make a success of it—because he wants to be a prize winner in the world's great race for achievement."

The same matter is emphasized by George W. Perkins, who declares: "The most important thing of all is to look upon your work as play and throw yourself into your work with the same zest and relish and determination to excel as when you play baseball or checkers or football. By adopting this mental attitude towards your work you can accomplish more and find greater pleasure and satisfaction in the doing of it."

How Do You Grade?

In this playing of the business game, are you or are you not a good co-operator? This is a question upon which we ought to have definite information, yet regarding which definite knowledge is hard to

obtain. Test Chart 21 has been devised for purposes of a self-grading test. Credit yourself in the column at the right, ten points, five points, two points, or whatever other number your qualifications merit in each particular case when measured by the requirements of standard practice.

What is your final grade?

Which credits are satisfactory? which unsatisfactory?

What definite means are you going to employ for raising these low credits?

QUESTIONS	CREDITS
1. Am I convinced that co-operation can aid me?	
2. Have I a clear idea of my own responsibilities?	
3. Can I be depended on to carry out the business day's numerous minor agreements even at the cost of some inconvenience?	
4. Am I keeping my record clear?	
5. Is my manner pleasing and do I present a well-groomed appearance?	
6. Am I open minded, approachable, a good listener?	
7. Can I work well with subordinates with whom I have had difficulties?	
8. Can I support actively policies decided upon but of which I have disapproved?	
9. Am I interested in other people for themselves, not merely as possible "customers" for myself?	
10. Can I forego immediate personal advantage for the sake of the enterprise as a whole?	
TOTAL CREDITS	

Test Chart 21. Points of Co-operation

CHAPTER XXVI

THE NEW IDEALS OF BUSINESS

The business man has created a new nobility for the common welfare.—R. GOODWYN RHETT, President United States Chamber of Commerce.

Thinking in Broader Terms

The co-operative virtues have grown in importance as business has passed from the one-man stage into that of large-scale production. Their scope, however, must needs have been widely extended in view of the breakdown under stress of the Great War of our local self-sufficiency and national isolation. The trend of the times and the terrific revelations of the war have shown that no man lives to himself alone, and that society as a whole has a claim for service on each individual. This claim exists in peace as well as in war. It has always been recognized by a few, but of late years has come to be more generally accepted, and now is fast becoming the rule of action for all business and professional men. The men who are coming to the front today are the men who put their duties as citizens, as patriots, above their personal business interests.

They think in broader terms. They are able to visualize men unseen, that great group termed consumers and that vaster and vaguer group termed the public. This is a new factor in the business of the future, and the far-reaching social development which it indicates, the dignity and exaltation of the function of business, can scarcely be magnified.

“Business Is Business”

In order to appreciate the progress the newer ideals of business already have attained, it is worth while as a contrast

to examine the old theories of business and ascertain how they worked out in practice. It is to be borne in mind that in former times anything attempted that was hard, mean, crooked or dishonorable was supposed to be justified by saying, seriously, as if it meant something, "Business is business."

In the preceding pages certain admirable business qualities possessed by John D. Rockefeller have been frequently cited, for the reason that his careful scrutiny of detail, his sound judgment and unusual executive ability to organize and plan on a magnificent scale, well merit the study of men who would seek advancement. With all these admirable endowments, how account for the peculiar opprobrium that attaches to his name? To explain this we must examine certain incidents of his career.

It had scarcely been decided in the sixties that Cleveland was to become the great oil refining center, when young Rockefeller, then twenty-three years old, quitted his produce commission house to go into the petroleum business. He was of the early-and-late sort, who saw everything, forgot nothing, and never talked. The twenty-five rivals already on the ground at Cleveland, according to his theory, were merely inconveniences to be put out of the way once and forever, and his brooding strategy after a time evolved a master weapon, namely, secret rebates from the railroads.

His company, the South Improvement Company, soon had the roads serving the oil region bound by secret contract, says Miss Tarbell in her *History of the Standard Oil Company*, to these provisions:

"The open rate on crude to New York was put at \$2.56. On this price the South Improvement Company was allowed a rebate of \$1.06 for its shipments; but it not only got this rebate, it was given in cash a like amount on each barrel of crude shipped by parties outside the combination.

"The open rate from Cleveland to New York was two dollars, and fifty cents of this was turned over to the South Improvement Company, which at the same time received a rebate enabling it to ship for \$1.50. Again, an independent refiner in Cleveland paid eighty cents a barrel for the shipping of his crude from the Oil Region to his works, and the railroad sent forty cents of this money to the South Improvement Company.

"An interesting provision in the contract was that full way bills of all petroleum shipped over the roads should each day be sent to the South Improvement Company. This, of course, gave them knowledge of just who was doing business outside of their company—of how much business he was doing and with whom he was doing it. Not only were they to have full knowledge of the business of all shippers—they were to have access to all books of the railroads."

Beaten year by year by such tactics as these, the independent refiners by 1884 came to look upon John D. Rockefeller with superstitious awe, as a dread power always ready to spring, cruel, fighting in the dark, and possessed of diabolic cleverness. To them he was a man of mystery who carried concealed weapons. Was it strange then that Mr. Rockefeller "persuaded" his competitors to sell him their properties at his prices? "I have ways of making money," he pointed out to one of them, Mr. Hewitt, "that you know nothing of."

The "Public be Damned" Policy

Here we have selfishness carried almost to the point of insult. While it is true that Mr. Rockefeller as a business man possessed the highly admirable qualities which have been cited, his greed combined with unscrupulous methods of the kind just described caused these admirable qualities to be as a rule ignored and rendered him perhaps the most widely dis-

trusted of all American leaders of industry. Yet the methods which Mr. Rockefeller employed for attaining his end have characterized other builders of American enterprise.

"Law!" once roared Commodore Vanderbilt, "what do I care about the law? Hain't I got the power?" Upon another occasion, observing that a Central director had not voted for certain propositions then under consideration, he asked the reason why. "Don't you know, Commodore," his friend replied, "that each and every one of those transactions is absolutely forbidden by the statutes of the State of New York?"

"My God! John," said Vanderbilt, "you don't suppose you can run a railroad in accordance with the statutes of the State of New York, do you?"

Jay Gould's railroad operations embraced every phase of kite flying, watering, stock jobbing, bankruptcy of companies and assessment of stockholders. Since wrecking a property, as he planned it, proved quite as profitable as building it into a dividend payer, he acted consistently upon the conviction that "all is permitted" which can be successfully accomplished.

Edward H. Harriman in pursuit of railroad dictatorship was a tyrant, harsh and overbearing, terrible in his crushing directness and absolutely without tact. The financier who was perhaps Mr. Harriman's closest associate once exclaimed, when his partner suggested that some friend of Mr. Harriman's ought to speak to him frankly on the unwisdom of his lack of tact: "Friend! I don't believe that Harriman has a friend in the world!"

The Public Revolt Against Misused Power

Yet, some years ago when accounts of their enterprises occupied places of prominence in newspapers and magazines, these four men were regarded as highly successful captains

of industry and their careers even to the narrow spirit in which they achieved were considered worthy models. In fact, there seems abundant reason to believe that the typical captain of industry a generation since was actuated only by a philosophy of getting; his supreme concern being revealed in this test of any proposal, "Does it yield *me* what I seek?" Ruthless power for the sake of pecuniary return was their ruling motive because the reins of power always tingle in the hands of a strong man and the one sure evidence of achievement then lay in material possessions.

Wealth did flow in upon these men. But the conviction gradually became current in the business community that this gain on the part of the captains of industry was due to the disturbance they created rather than to their productive effort. The real social advantage that resulted from much of their organizing ability was obscured by the grasping avarice, the foul play in competition, the contempt for moral and legal obligations, and the utter absence of any social conscience, shown in their business relations. These men who for material gain sacrificed conscience and honor and trampled on all social right, after a time irritated the public into a condition of enmity hard to overcome.

In its practical application this public indignation has been responsible for a wide variety of repressive and regulative measures—for public distrust, "soap box" and Chautauqua agitators, "muckrakers," investigating commissions, public utility and railroad commissions, anti-trust legislation, income and inheritance taxes, and the increased demand for government ownership and operation. The net result of such measures is to make customary—and frequently legal as well—a stricter and more specific code of rules for the business game. The controller of an enterprise is under scrutiny that he compete, and fairly too; and the umpire is increasingly watchful and jealous of his power.

The "Public be Served" Policy

There are those who regret the good old days; who consider the brutal and remorseless competition, the disregard of law and fair play, the selfish scramble for money and power, as in themselves something admirable and resulting in the survival of the fittest. Such as these see in fair play, submission to law, and consideration for employees and the rights of the public, only weakness and degeneration. They say that business is in danger of becoming a parlor game, with men in their most fierce competition restricted to *bon mots* and banquets. Is there any truth in this theory? It is true that rough-and-tumble individualism is gone never to return; yet after all the game, although changed, requires not less but a different kind of skill. The old system emphasized the strenuous competition, the *production* of material goods in vast amount, the heaping up of mighty fortunes. The new system, which lays more stress upon fair trade and the rights of employees, has material goods so *distributed* as to make for friendship, happiness and idealism among men. The old system had for its slogan "The public be damned!" the new system selects as its watch-word "The public be served!"

The Corporation Discovers Its Soul

The legal restrictions now imposed upon the conduct of business by public sentiment are supplemented and made more searching through the influence of the company's stockholders, employees, and customers. The stockholders, because they are so numerous and in general unidentified, have all but obliterated the distinction between owner and public, a result which, needless to say, widens immeasurably the responsibility of the company's officials.

The employees who are to drive a large-scale enterprise at its maximum capacity require careful selection, training,

and such incentives in wages and *esprit de corps* as will grip each man and impel him to do his best. The satisfying of these requirements by the management calls for the human touch, for the executive qualities which characterize the expert social engineer.

The customers are reached through advertising, a method of marketing which standardizes quality and renders misrepresentation suicidal; and the advertising is followed up by salesmen armed with the strongest selling tool shrewd sales-managers have yet been able to devise, the appeal to self-interest—what our goods will do for you—in other words, service. The proprietor might work from entirely selfish motives and because of his superior ability higgledy success-fully with customers. But with the average salesman, particularly in retailing, such a policy is dangerous. Far better the one-price system, the “quality” article which begets the salesman’s confidence, the conviction amounting almost to a certainty that these goods are for the prospect’s own best interest—since these things give him power to insist, a dynamic friendship. “Here is the thing in a nutshell,” as that prince of sales-managers, President Cottingham, puts it, “merit begets confidence, confidence begets enthusiasm, and enthusiasm conquers the world.”

In trying to solve the very practical question of how best to deal with stockholders, employees and customers, the corporation has discovered its own soul. The best methods of financing, production and marketing, it has found to depend upon high standards of truth, fairness and service, and these when practiced have resulted in a profit-producing power far in excess of interest and replacement return on tangible assets, a good-will which so long as it can be held deserves its inclusion quite as much as plant or real estate in the capitalization.

The Executive's Service Ideals

What of the man at the top? As a fountain head of an organization throbbing with business idealism, the old narrow, greedy type assuredly cannot serve. Changing conditions evolve new standards of selection and due to these a different sort of business executive has now risen into prominence, emphasizing the co-operative virtues with service as his keynote.

"Ultimately," so runs the creed of Judge Gary, head to-day of the world's greatest corporation, "efficiency is based upon a policy of life which considers first the claims, needs and deserts of the other fellow. Generous motives, fair principles, and honest dealings are vastly more important as efficiency measures than the technical phases of skilled management and economical production."

This creed announced by Judge Gary, which he and hundreds of other leaders in finance and industry practice today, would have impressed the magnates of the old school as too ethical for practical purposes. Yet men of the new school are not finding it so.

"Most men who have really lived," declared the railroad king, James J. Hill, whose death was widely mourned as a national loss, "have had in some shape their great adventure. This railroad is mine." Note the words. The Great Northern was to Hill a great adventure although he accepted no salaries serving as its President, Chairman of the Board, or Director; refused at all times to use his inside information in manipulating the stock market; and, as an instance among numerous acts of like nature though less in the amounts involved, turned over to its stockholders at cost the Missabe ore lands whose purchase price, paid by his own money, was \$4,000,000 but whose real value, it has been estimated, is \$750,000,000.

Great adventures, in truth, are open to the business man

now as heretofore. But society, wedded to the principle of democracy and insistent upon such an equalization of opportunity and reward as will in general evoke the full powers of all, demands that these great adventures be confined to projects socially expedient and that their promoters accept not a lesser but a somewhat different type of reward.

"The dividend which the business man seeks and receives today is not alone in dollars," explains Andrew Carnegie, an enterpriser of the old school who is remarkably adaptive to the new order, nay, more than that, its active promoter. "He receives with the dollar something better—a dividend in the shape of satisfaction in being instrumental in carrying forward to higher stages of development the business which he makes his life work."

Development of Social Consciousness

The development of a more vivid social consciousness constitutes for most men perhaps as difficult a task as any. In reality, however, it calls only for the inclusion of more persons and more territory within the scope of the relations which men usually exercise so well in narrow circles, such as the family, the club, or the neighborhood. This means that a man is to recognize his wider obligations and perform them with something of the flesh-and-blood interest which closer obligations always have received:

"Every man who by eminent success in commerce or finance raises himself beyond his peers," says Otto Kahn, the well-known financier, "is in the nature of things more or less of an 'irritant' (I use the word in its technical meaning) to the community.

"It behooves him, therefore, to make his position as little jarring as possible upon that immense majority of men whose existence is spent in the lowlands of life so far as material circumstances are concerned.

"It behooves him to remember that many other men are working, and have worked all their lives, with probably as much effort and assiduous application, as much self-abnegation as he, but have not succeeded in raising themselves above mediocre stations in life, because to them has not been granted the possession of those peculiar gifts which beget conspicuous success, and to which, because they are very rare and because they are needed for the world's work, is given the incentive of liberal reward."

The Enduring Satisfaction of Business

The broad tolerance and consideration for others, of which Mr. Kahn speaks, prevailed in an inspiring way during the Great War. Men of affairs, engineers, executives, and financiers, in the finest of spirit disregarding every opportunity for personal profit, served their country whole-heartedly because it was *their* country and the ideals for which they as Americans stood were at stake. They endured and conquered with a *morale* which was irresistible.

The ideals maintained steadfastly and so high, it may be, cannot continue unchanged now that the threat of Teuton domination is withdrawn; but the lofty unselfishness, the wholehearted service of which we justly are proud, shall in part at least remain as a permanent gain. The idea of business as merely the satisfaction of sordid desires, the exploitation of opportunity for personal ends solely, the willingness to wreck quite as readily as to upbuild provided only it were profitable, have in the love of higher things and the imperious call for sacrifice of self lost in large measure their old-time appeal.

The war thus has hastened a process which inevitably, like a ferment, has been for years working itself out in business. Its ideal is service, its purpose the common good, its slogan democracy, its achieving instruments all forward-looking men. Executives enlisted in this movement not only

make America the magnificent but secure for themselves the enduring satisfactions of business.

EXERCISES

In this, the final exercise, let us ponder over certain questions which reach down to fundamentals and lay bare our philosophy of life.

1. Whom do you admire as ideal business men? What qualities render them to you ideal?
2. Whom do you regard as high-placed misfits? What qualities in them does it appear desirable to avoid?
3. Do you or do you not consider service the foundation of success in business?
4. Through what concrete ways can you keep your business ideals high?
5. What to you are the ends most to be desired in the business career?

The answering of these questions sincerely and fully calls for a searching of the heart such as a man permits himself only when in silence alone he thinks over the deeper problems of destiny.

CHAPTER XXVII

THE GOAL WHICH MOVES FORWARD

The first concern of every man is to know that he is achieving something, advancing in material wealth, industrial, power, intellectual strength and moral purpose.

—JAMES J. HILL.

Yourself That is To Be

In the foregoing chapters various principles and details have been considered which, put into practice, increase executive ability. Considered separately some of these principles may have seemed trifling. Even though they be trifles, however, they all go to build up the able executive, and the man who aspires will utilize them to his advantage. In order that principle and detail may be fitted into that consistent program which moves a man forward, the young executive needs a vision of the self that is to be.

The executive's development and management of himself is the most vital problem in business, because none other lies so near the heart of his concern's prosperity or failure. Up at the top of every business—at the apex of its pyramid of functions—sits someone to whom all lines, wires and paths of communication lead, the focus of countless records, problems, and plans; from whom radiate the policies, the initiative, and the spirit which write the future of the enterprise. No other position is so hard to fill, because no other man must be so well rounded and evenly poised.

Men are not well rounded and evenly poised by chance, but become so only after more or less arduous and long continued effort. They must grow into the self that is to be.

Utilizing the Concrete Opportunities

The man who looks forward will appreciate the fact, repeatedly emphasized in the foregoing chapters and exercises, that the development of oneself is the practical thing that leads to executive success. The program has been outlined and the concrete opportunities are here.

The executive cannot walk upon the streets, enter the public library, glance through the newspapers, consult the journals which treat his specialty, converse with people worth knowing, or observe the progress of his friends without becoming a wiser man. More than this he cannot fully discharge the responsibilities of his position without at the same time broadening his horizon and deepening his powers, because under the conditions of today, which will be increasingly true of conditions tomorrow, all the opportunities and the means needed by the executive for his self-development can be compressed into the terse phrase *study your business*.

"I can confidently recommend to you the business career," declares Andrew Carnegie, "as one in which there is abundant room for the exercise of man's highest power and of every good quality in human nature. I believe the career of the great merchant or banker or captain of industry to be favorable to the development of the powers of the mind and to the ripening of the judgment upon a wide range of general subjects; to freedom from prejudice and keeping of an open mind."

The possibilities which Mr. Carnegie discovers in the business career can be realized by any man who in the right spirit studies his business. Needless to say this study should never in the case of the executive be simply a matter of mental gymnastics but comprehensive carefulness of thought followed hard by performance. *Study your business* when translated literally means *do your best*.

A wonderful efficiency adheres in this simple rule. The

man who does his best invariably grows. Each task upon its completion leaves him an expanded capacity, a fertility of resource, and a tested strength which increasing with the years represents self-development continuously actualized.

The Road to Mastery—and Its Side Paths

How far shall this process of self-development be carried? Since human nature is never cast once for all in a mold but under the proper treatment is subject to a continual refashioning, every man is, in a very real sense, the architect of his own fortunes. Accordingly this inquiry may at practically any time arise in his mind. What lies before me—what further progress can I make?

While not often do men openly boast that they have reached the pinnacle of possible success, the drive-killing thought that already the goal is won limits generations of business men. The plaudits of a small organization or community, the subtle voice of flattery coming from within, too often prove seductive and, like the songs of Delilah, bind the unwary man to perpetual mediocrity.

The real test of a man is his conduct under prosperity.

Does it steal away the hard drive, the terrific pace which has advanced him heretofore? Does it leave him self-satisfied and complaisant, an easy prey to the first lusty competitor? Does it distort beyond measure his ego and substitute rashness for sound judgment? Does it induce him to throw away his program of efficiency, since he now has attained all that is humanly desirable?

"As our success began to come," remarks John D. Rockefeller in reminiscencing over the early days in the oil industry, "I seldom put my head upon the pillow at night without speaking a few words in this wise: 'Now a little success, soon you will fall down, soon you will be overthrown. Because you have got a start you think you are quite a merchant; look out

or you will lose your head—go steady.’ These intimate conversations with myself, I am sure, had a great influence on my life. I was afraid I could not stand my prosperity, and tried to teach myself not to get puffed up with any foolish notions.”

The Man Who Moves Forward

The real builders of American business have maintained balance consistently—as they moved forward. In the small towns and farming communities from which they were recruited, they, too, were once proffered by admiring friends the same chloroform which the circumscribed usually accept with such shallow pleasure. But in their case the antidote was effectual: They possessed the power to grow and their goal was one which moved forward.

Who would not emulate them and likewise enjoy the profits and the enduring satisfactions which go with achievement? Deep down in his heart a man finds but one answer to this question: “I too will attain my maximum.” With the principles and methods of self development and management as a program, he disciplines and refines his native capacity, training, directing and nurturing it in faith and hope and charity.

The result is as certain as anything humanly predictable. The man who faithfully schools himself in these principles and methods of personal management can with perfect confidence leave the future to itself; growth will take place and the harvest is his.

PART IX

WHAT TO READ

Ample and accurate information is the best step toward success for everyone; and the world of historic fact, economic fact, and scientific fact, with the bearing of each upon the probable future of human effort, is now so large that a man will find his business too little for his desire to equip himself with knowledge.—J. J. HILL.

I work always, I ponder things deeply. If I seem always ready to reply to anything, to confront anything, it is because, before undertaking anything, I have thought it over for a long time; I have foreseen everything that can happen. It is not genius that reveals to me suddenly what I must say or do on occasions which take others by surprise, it is reflection; meditation. I work all the time.—NAPOLEON.

CHAPTER XXVIII

INTELLECTUAL PREPAREDNESS

*For I dipt into the future, far
As human eye could see;
Saw the vision of the world, and
All the wonder that shall be.*

—TENNYSON.

The Future Business Leader

In the doing of today's work a man should train his powers with an eye upon tomorrow. This means nothing more than foresight applied to personal management; a preparing now for future business leadership.

This executive to come, this leader who will swing the enterprises which are to be, will necessarily possess a superior capacity. No petty trader, no putterer over details, no mere hoarder can handle the complex relations of such an enterprise nor deal efficiently with the broad-gauge problems which characterize its development. These are matters for whose solution an executive must dig deep into economics, sociology, the relations of capital and labor, and the complex problems of government and social well-being. He will have to work with lawyers, engineers, chemists, statesmen and economists. He must of necessity be as well educated, as well trained, as well disciplined as they.

Broadness of perception and sympathy will be required. This business leader of the future will sense the inner desires of subordinates, employees, and customers, and plan almost intuitively their gratification. He will know the public—the common people, the citizens of his country. Policies and methods of doing business he will shape with due considera-

tion for the rights and sentiments of all those whom he sees fit to regard broadly as his co-workers.

The leader in a free country necessarily has to be an abler man than the autocrat who rules a race of slaves with an iron hand. The executive who dominates a factory, a commercial house or a financial institution in a society of intelligent and civilized people, jealous of their own rights, quick to note fraud, injustice or oppression, must be a different type from the profiteers, the audacious business barons, the commercial freebooters who upon occasion dominated in the past.

Constructive business team-work is something higher and more difficult in its leadership than bossing a section gang; the commanding of intelligent and capable subordinates calls for more skill than being mate over a crew of rough sailors; to guide a business enterprise in a civilized and enlightened community when the rules of the game protect stockholder, employee and consumer is a more complex undertaking than was the pioneer's rough and ready task. Business, simply because it mounts constantly toward a higher plane, demands of its leaders an increased capacity.

Self-Culture in Business

The man who purposes in all seriousness to develop within himself the increased capacity demanded of the future executive will wring valuable knowledge from every experience. Conferences, conventions, technical experts, friends and chance acquaintances, books, trade journals, mishaps, successes, and problems faced, alike serve him as stepping stones toward a broader knowledge and a firmer grasp of business. This is quite as it should be; the seeker of positive impulses will get ahead.

Opportunity is here and the time is now; seek those positive impulses. If satisfactory progress is not being attained, it requires only an examination of some notable career, such

as that of Lincoln, Roosevelt, Marshall Field, Carnegie, or Schwab, to realize how puerile are the excuses for non-advancement with which a man is accustomed to solace himself! "I never had a chance to go to college." "I have no time." "I cannot afford it." "I am too tired to study." Humiliation should overcome the person who in these days of abundant opportunities for self-culture thus deludes himself. Being fundamentally untrue, these excuses prove only that his intentions are not serious.

The college diploma of itself does not guarantee success; it does signify training, and the trained mind must then carve its own future. But this training which the colleges offer, a great many master achievers have seen fit to work out for themselves in the midst of practical affairs. By persistent self-direction they broadened their knowledge, disciplined their powers, and developed fertility and resource in solving problems. This persistence it was, and neither the possession of a college diploma nor the lack of it, which made them great.

Making the Most of Opportunity

Twenty-four hours a day is granted each man: no one has more. While the possibilities of spare moments are truly astonishing as can be proved by whoever will assiduously utilize them, they are far surpassed by the possibilities of studying as we work. Since each task, no matter how humble it be, is connected up with all other activities of the organization and through those with business in general, it remains for a man to determine whether, a passive toiler, he shall degenerate into a cog, or alert and positive, eager to inquire and insatiable for knowledge, he makes of business a real profession.

The man who refuses to develop himself in the belief he cannot afford the time and money closes his eyes to the wastes disclosed by Bradstreet's. Incompetence in 1915 wrecked

5,689 businesses, inexperience cost an additional 1,057 failures, lack of capital 5,229 more. Who loses money when the proprietor refuses to study finance and business management, or to profit by the experience of successful men? Yet these actual losses are much less and scarcely more deplorable than the failure to secure those profits which the trained man does secure. The efficient man does more than avoid losses; he discovers profits otherwise hidden and makes them real. To him the cost of self-development is truly not expense but investment.

The condition of being too tired commonly indicates nothing more than faulty habits of diet, posture and breath control, insufficient sleep and exercise, needless strains and unproductive expenditures, and particularly a flabby will unable to transform sluggishness into force and vital power. Self-development can alter these below-par conditions since its program deals with both the production of force and its proper conservation, a program of personal dynamics which the tired man most of all needs.

These and sundry other excuses which would make us victims of our "worse" selves can all be routed in one way or another by whomsoever desires to grow. This expresses in one sentence the message which the nation's most revered hero illuminated by his entire life.

The Making of a Great Character

The rude life of the backwoods in the midst of which he was born and where his early years were spent might well have appeared fated to yield Abraham Lincoln an equally commonplace and secluded career. No doubt this would have occurred had he not laid hold of every opportunity for self-improvement, of which the following instance is typical.

"One day a man who was migrating to the West," said Mr. Lincoln in relating the incident several years later, "drove up

in front of my store with a wagon which contained his family and household plunder. He asked me if I would buy an old barrel for which he had no room in his wagon, and which he said contained nothing of special value. I did not want it, but to oblige him I bought it, and paid him, I think, half a dollar for it. Without further examination I put it away in the store, and forgot all about it. Sometime after, in overhauling things, I came upon the barrel, and emptying it upon the floor to see what it contained, I found at the bottom of the rubbish a complete edition of Blackstone's Commentaries. I began to read this famous work, and I had plenty of time; for during the long summer days, when the farmers were busy with their crops, my customers were few and far between. The more I read the more intensely interested I became. Never in my whole life was my mind so thoroughly absorbed. I read until I devoured them."

This instance, one of many of like nature, reveals a great character in the process of being forged. In the log cabins of the pioneers poring over the only copy of Kirkham's Grammar the community afforded, in the country debating societies developing his ability as a public speaker, in the stuffy hotel bedroom with a candle by his side studying the demonstrations in the first six books of Euclid while his brother lawyers slept, in court-room, halls of Congress or White House, Lincoln was always exhibiting the one trait which more than any other accounts for his marvelous advance—power to grow.

The man who determines that he, too, shall grow must not stop at that. He must supply his mind with the materials with which growth can take place. The reading of good business books, supplementing as it does the preceding chapters and exercises, aids most decidedly in charting the way toward broader conceptions.

A good book has compressed into its pages the author's life experience, and the reading of it affords an entirely feasible method of increasing the mental stature.

CHAPTER XXIX

BOOKS FOR THE BUSINESS MAN

The man who applies himself seriously to thinking will by and by be amazed to find out how much there is to think about.—OTTO H. KAHN.

A Broad Effectiveness

In order to render the reading of the books which follow more systematic, the various titles are grouped in such a way that a more or less organized course of study results. The divisions themselves in each case cover subjects of such importance that whoever studies them will inevitably broaden his horizon, train his powers, and make himself to a greater degree an educated person.

Business Management

The study of personal management naturally merges into business management in general. The books here specified excellently present various important phases of business management.

- Taylor, Frederick W. *The Principles of Scientific Management.* Harper Bros., New York. 1911.
- Gowin, Enoch Burton. *The Executive and His Control of Men.* The Macmillan Co., New York. 1915.
- Galloway, Lee. *Office Management.* Ronald Press Co., New York. 1918.
- Jones, Edward D. *The Administration of Industrial Enterprises.* Longmans, Green & Co., New York. 1916.
- Diemer, Hugo. *Factory Organization and Administration.* McGraw-Hill Publishing Co., New York. 1910.
- Thompson, Clarence B. *Scientific Management; a collection of the most significant articles describing the Taylor system of management.* Harvard University Press. 1914.

Twyford, H. B. Purchasing. D. Van Nostrand & Co., New York. 1915.

Twyford, H. B. Storing. D. Van Nostrand & Co., New York. 1918.

Marketing

All executives in an organization are concerned, either directly or indirectly, in the sale of the company's product. This sales activity has received careful thought of late years, much of the results of which will be found presented in summarized form in the following books:

Nystrom, Paul H. Economics of Retailing. Ronald Press Co., New York. 1919.

Cherington, Paul T. Advertising as a Business Force. Doubleday, Page & Co., New York. 1913.

Tipper, Hotchkiss, Hollingworth, and Parsons. Advertising—Its Principles and Practice. Ronald Press Co., New York. 1919.

Fisk, James W. Retail Selling; a guide to the best modern practice. Harper Bros., New York. 1916.

Whitehead, Harold. Principles of Salesmanship. Ronald Press Co., New York. 1917.

Finance

The development of the corporate form of organization and the necessity for a closer financial control through budgets, emphasizes strongly to the modern executive the importance of a thorough knowledge of finance. The careful reading of these books will go far to supply such knowledge.

Dewing, A. S. The Financial Policy of Corporations. Ronald Press Co., New York. 1919.

Lyon, Walter H. Corporation Finance. Houghton Mifflin Co., Boston. 1916.

Pratt, Sereno S. The Work of Wall Street. D. Appleton & Co., New York. 1912.

Clay, Paul. Sound Investing. Moody Magazine and Book Co., New York. 1915.

Lough, William H. Business Finance. Ronald Press Co., New York. 1917.

- Babson, Roger W. *Business Barometers Used in the Accumulation of Money*. Babson's Statistical Organization, Boston. 1916.
- Conyngton, Thomas. *Corporate Organization and Management*. Ronald Press Co., New York. 1918.

Accounting

The necessity of adequate records and the various steps in the process from original entry to balance sheet were indicated in a preceding chapter. The following works discuss all such matters with a considerable thoroughness, and thus supply information essential to the well-rounded executive.

- Kester, Roy B. *Accounting, Theory and Practice*. Ronald Press Co., New York. Vol. I 1917. Vol. II 1918.
- Klein, Joseph J. *Elements of Accounting; Theory and Practice*. D. Appleton & Co., New York. 1915.
- Hatfield, Henry R. *Modern Accounting*. D. Appleton & Co., New York. 1909.
- Esquerre, Paul J. *Applied Theory of Accounts*. Ronald Press Co., New York. 1914.
- Montgomery, Robert H. *Auditing, Theory and Practice*. Ronald Press Co., New York. 1916.
- Nicholson, J. Lee and Rohrbach, J. F. D. *Cost Accounting*. Ronald Press Co., New York. 1919.

Economics

The foregoing books present phases of business with which every executive has to deal. It may be that he deals with them at such close range that he cannot "see the woods for the trees." At any rate, whether he is overburdened with details or simply wishes a comprehensive view in order to increase effectiveness, economics will prove helpful, since, with respect to the above four subjects, it deals with general principles.

- Carver, Thomas N. *Principles of Political Economy*. Ginn & Co., Boston. 1919.
- Ely, Richard T. and Wicker, George R. *Elementary Principles of Economics*. The Macmillan Co., New York. 1917.

Taussig, Frank W. Principles of Economics. The MacMillan Co., New York. 1918.

Haney, Lewis H. Business Organization and Combination. The Macmillan Co., New York. 1914.

Business Law

A knowledge of business law is a decided asset to any executive, even though he is not a specialist in charge of the legal phases of his company's business. The following books present the essentials of business law in an interesting and non-technical way.

Conyngton, Thomas. Business Law. Ronald Press Co., New York. 1918.

Huffcut, E. W. Elements of Business Law. Ginn & Co., Boston. 1917.

Parson, T. Laws of Business. S. S. Scranton Co., Hartford, Conn. 1914.

Sullivan, John J. American Business Law. D. Appleton & Co., New York. 1912.

The Scientific Method

The executive should know business thoroughly, that is certain; yet in order to do this he must be a scientist. While this does not mean that he shall work with test tubes and laboratory, it does imply that the methods of science are to mold his habits of thought. The attainment of this much-to-be-desired result will be hastened through the study of the books which follow.

Dewey, John. How We Think. D. C. Heath & Co., New York. 1910.

Creighton, James C. Introductory Logic. The Macmillan Co., New York. 1909.

Copeland, Melvin T. Business Statistics. Harvard University Press. 1917.

Brinton, Willard C. Graphic Methods for Presenting Facts. Engineering Magazine Co., New York. 1914.

Pearson, Karl. Grammar of Science. The Macmillan Co., New York. 1911.

Health and Mind Culture

The securing of the most effective results from his own body and mind is about as practical as any problem with which the executive can be faced. It is the purpose of health and mind culture to apply science in this respect to a person's management of himself.

Fisher, Irving and Fisk, Eugene Lyman. *How to Live; rules for healthful living, based on modern science.* Funk and Wagnalls, New York. 1917.

Sadler, William Samuel. *Science and Living; or the art of keeping well.* McClure Book Co., New York. 1910.

Seashore, Carl Emil. *Psychology in Daily Life.* D. Appleton & Co., New York. 1913.

James, William. *Talks to Teachers on Psychology: and to students on some of life's ideals.* Henry Holt & Co., New York. 1899.

Bennett, Enoch Arnold. *How to Live on Twenty-Four Hours a Day.* The Doran Co., New York. 1910.

Marden, O. S. *Pushing to the Front.* Crowell Publishing Co., New York. 1911.

Hollingsworth, H. C. and Poffenberger, A. T. *Applied Psychology.* D. Appleton & Co., New York. 1917.

Natural and Social Sciences

The study of natural and social sciences very likely will impress the average reader as more interesting and quite as helpful as that of the scientific method. Certain of the books cited bear directly upon business problems and all of them afford in addition to their information an extremely valuable point of view.

Scott, Walter D. *Influencing Men in Business.* Ronald Press Co., New York. 1916.

Tead, Ordway. *Instincts in Industry.* Houghton Mifflin Co., New York. 1918.

Ward, L. F. *Applied Psychology.* Ginn & Co., Boston.

Blackman, F. W. and Gillen, J. R. *Outlines of Sociology.* The Macmillan Co., New York. 1915.

Judd, John W. *Coming of Evolution.* (Cambridge Manuals of Science and Literature.) Putnam's, New York. 1910.

Jordan, David Starr and Kellogg, V. L. *Animal Life*. D. Appleton & Co., New York.

Hollingworth, Harry L. *Vocational Psychology; its problems and methods*. D. Appleton & Co., New York. 1916.

Brigham, Albert P. *A Text Book of Geology*. D. Appleton & Co., New York. 1901.

Biography

When forging ahead in business a man often feels the need of that inner rejuvenation of the spirit which comes best from the study of some great character. Biographies such as the following thus perform a useful service.

Roosevelt, Theodore. *Autobiography*. The Macmillan Co., New York. 1913.

Pyle, V. G. *Life of J. J. Hill*. Doubleday, Page & Co., New York. 1917.

Tarbell, Ida M. *The Life of Abraham Lincoln*. The Macmillan Co., New York. 1900: 1911.

Franklin, Benjamin. *Autobiography*. Not copyrighted.

Rockefeller, John D. *Random Reminiscences of Men and Events*. Doubleday, Page & Co., New York. 1909.

Forbes, B. C. *Men Who Are Making America*. B. C. Forbes Co., Inc., New York. 1917.

Johnston, R. M. *The Corsican: a diary of Napoleon's life in his own words*. Houghton, Mifflin Co., New York. 1910.

Correspondence Courses

The demand of executives for a knowledge of business broader and sounder than heretofore has resulted not only in the writing of many books but also in the development of correspondence courses devoted to business principles and methods. The service afforded by the better of these schools is worthy of consideration by the progressive business man.

Current Publications

The careful reading of the best business publications, such as the following, keeps a man mentally alive and up-to-date.

System. Monthly. A. W. Shaw Co., Chicago.

Printers' Ink. Weekly. Printers' Ink Publishing Co., New York.

Industrial Management. Monthly. The Engineering Magazine Co., New York.

Factory. Monthly. A. W. Shaw Co., Chicago.

Journal of Accountancy. Monthly. Ronald Press Co., New York.

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